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J. J. CASSIDY, M.D., EDITOR.

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Original Contributions.

PRESIDENT'S ADDRESS.*

BY W. BURT, M. D., PARIS, ONTARIO.

Ladies and Gentlemen,—I cannot fully express myself for the honor I received at your hands at our last annual meeting. My voice is not strong enough to express my appreciation of your good-will towards me and my confreres from the West. I feel my inability to do justice to the position to which I have been exalted, and I will crave your patience and sympathies for a brief space of your time.

I cannot vie with those who have preceded me in this honored chair. I can only strive to emulate them. We have already an honored list of past-presidents, and, while the time now is short when I will be with them, I feel that my interest in this Association will ever increase as the years roll by, and I never for a moment believe that our Association will ever wane, but that its usefulness and power will increase from year to year, and that it will be a standing authority on Provincial matters concerning our profession.

I am sure we may well feel proud to-day to celebrate the 25th anniversary of our existence. We have arrived at the quarter-century mark in a very healthy and prosperous condition, and I do not fear—I feel I can be prophetic—that those who will celebrate the fiftieth anniversary of this Association will, when it arrives at the half-century mark, find that medicine has made even greater strides during the second quarter than during the first, and that our Association will be credited with promoting in no small degree the welfare of the people. I feel that we here in Ontario would be unworthy of our noble calling if we had not brought into existence the Ontario Medical Association, and given it our encourage-

*Delivered before the Ontario Medical Association, June, 1905.

ment and support. Among our neighbors to the South, the people of the United States—I came near saying Americans, but, as is well known, we as Canadians claim that title ourselves—the State Association is a great factor in the building up and ennobling of all the higher ideals of life, and is considered one of the best authorities on all matters pertaining to the control of the profession and the health of the people. In this, I feel we should vie with our neighbors, and not be behind in any matter pertaining to the health of the Province. There is no reason why Ontario should not be to the fore in the fight against the enemies of life. There is much that is of a provincial nature—the work of the Provincial Board of Health, the care of the insane, the public hospitals, the relief of inebriety, medical legislation including medical education. A matter of no little importance, too, is it brings the members of our profession into closer touch with each other. It is to the benefit of the individual member. He cannot fail to have his mental horizon extended. In union there is strength.

It has been said that surgery has about reached its limit, and that there is little left for us to do in the way of improvement. Surgery is in as active a stage as ever. While much of the work that is being done now appears marvellous compared with the work of a quarter of a century ago, there is no doubt, and many of our surgeons recognize it, that there is still in sight a great field for improvement, and that we may be looked upon as lilliputians compared with those who will do the work at the end of the next quarter or half century. While our knowledge is actually great, it seems little after all when we consider the possibilities of the future. When the tubercle bacillus was made known to us we were congratulating ourselves that the white plague would disappear forever. Although we are wondrous wise we have no reason as yet to boast of any great wisdom. No matter how much we quarantine the microbes they still produce—I say this advisedly—such diseases as the white plague, enteric fever, the infectious diseases and many others, and by their flank movements get in their deadly work. On the part of the physician it will always be a fight to the finish—the French proverb. "Après la mort le Médecin," expresses it aptly—on the part of the microbe a fight to the death. The discoveries that have already been made impress us only too strongly that research work must be pursued on a larger scale than ever, and our multi-millionaires benevolently, philanthropically inclined in their later days at least could not do better than aid in the great work of research While we can felicitate ourselves for much that has been done in the matter of serum treatment, especially in diphtheria and rabies, we may look forward to even greater things. Great as these advances seem, the possibilities seem greater. The surgeon, as is well known, is too often the victim of so-called blood poisoning. It has claimed as its victims many of the most skilful and cultured of our profession, besides placing many others near the brink of the great beyond. It is

needless to mention names, they are well known to us all. There are many living to-day who feel that they have narrowly escaped the jaws of death—I might say the jaws of the microbe—and only a vigorous constitution, or a rather attenuated attack of the microbe, has spared them a few years more. I appeal again to the philanthropist to assist us in our work of research. There is no fight on now of greater import than the battle against the disease-producing microbes. As it is, I rather think the microbes have a little the best of it, perhaps a good deal the best, but I hope ere long through the work of research, aided and abetted by the lovers of humanity, that the microbe will suffer defeat, in fact be annihilated, or at least rendered harmless. And, while I am on the matter of research work, let me pursue it a little farther. It is not through ignorance of the habits of the microbes that many diseases are prevalent. Take, for example, the somewhat common disease of diabetes mellitus—how little is known concerning its origin, its prevention, and successful treatment. And again, take the epileptic—their number is legion. There are being, very properly, sanatoriums established for their care and maintenance. We are well aware that the great majority of epileptics are epileptics to the end. These are simply examples to show what a great field there is for research work other than what the microbes give us. It would be well if many of our clever gold kings would study medicine and pursue with their surplus wealth the great field of research. I think it would be better if they would use it for the establishment of schools for research work, wherein those who are known in our profession for their abilites may pursue their work. We are well aware that a school of this kind has been established in Washington by the King of the Iron Industries. While I am not jealous of our neighbors—I am indebted very much to them—I would like to see in this fair province of ours a school for research work in medicine that would be untrammelled, unfettered, by the want of financial support. This is not unreasonable. It was through the air of Ontario that the telephone wire first came into use—not in one of our large centres—but from a country residence, Tutela Heights, to the now city of Brantford. I can recall how I was thrilled when listening in the first Brantford office to music produced at the country residence of Prof. Bell.

Canadians have already done considerable research work. While it may be that research work can be carried on in our larger cities to greater advantage, it has been well shown that in preparing the student for research work many of the smaller schools do as efficient work, if not more so, than the larger ones. Personal supervision of the teacher is one of the greatest helps in preparation, and this as a rule is better carried out in the smaller schools. However, our larger schools by increasing the staff are giving recognition to the fact that individual attention is one of the greatest helps to the student life. Many of the improvements and advances in our profession have not been due to the labora-

tories of our universities, but have been thought out during the daily rounds, let me say, of the country physician. I ask you to recall Ephraim McDowell.

Not to be behind our smaller cities in Ontario, Toronto, every one will be glad to know, is about to make a great effort to be up-to-date in the matter of hospital extension and library work. There is no doubt that if successful in their undertaking research work will receive a great impetus. While it may seem a matter of great renown for him who succeeds in the field of research and gives to the world something new, it is no less praiseworthy for him whose lifework consists in administering all that is latest and best for the relief of human suffering. There may be a scintillation of truth in the fact that if a man has little desire to enter the field of research before middle life he is not likely to do much after, but it is an incontrovertible fact so far as the application of what is already known to be beneficial, to be helpful for the relief of suffering humanity, the powers of the physician, his experience, his judgment, his power of discernment, increase as the years roll on, and do not cease until disease or a ripe old age superannuates him. The author of "Bonnie Brier Bush" tells us that it created a scandal in his country for any citizen to "slip awa'" before sixty, and that persons above ninety were understood to be acquitting themselves with credit, and brushed aside the opinion of seventy as immature.

You will agree with me, I am sure, that the sum of human happiness could be materially increased by the stamping out of some preventable diseases—diseases that may be totally avoided, diseases that are under the control of the individual and society. The gynecologist, the genito-urinary surgeon, the neurologist, will tell you that a great deal of their work is due to the gonococcus and syphilis. What diseases are more loathsome? You will admit I am sure, that these are preventable diseases. What diseases are more contagious? What diseases leave their dire results in the human system more than these do, to be handed down to the third and fourth generations? And yet they are preventable, wholly preventable. It is not for me to discuss the phases of social life that produce these, but in many instances useful innocent lives should be protected. It is true in the practice of our profession, in operations on the syphilitic, numbers have been inoculated and lives of usefulness marred. What more noxious than a syphilitic with mucous patches or an epithelioma on his lips or a specific sore throat offering his pipe to a comrade or participating in the communion in any of the Christian churches where the individual cup is not used. I feel sure if the laity could understand the disastrous results of oral aspsis, there would be no dissenting voice in the use of the individual communion cup. The physician can evidently curtail much misery, but he needs the help of the public to stamp it out altogether. It needs a greater concern on the part of everyone in social and moral reform, a cultivation of

higher ideals. You may attribute it to ignorance or want of education. These are but scapegoats. If it is due to want of education, then let me say that the people of our large centres are lamentably ignorant; and just here I beg to state, in my opinion the ends of justice would be as well secured by taking the oath with the hand uplifted as that impure method of kissing the Bible—a Bible that has done untold service. What more impure? To return again to the disease-producing germs, a well-known characteristic of the microbe is that it is cowardly. It will attack many subjects unless their systems become weakened, as is the case of many young people, from want of proper nourishment, from living in closely crowded, ill-ventilated, tenement houses, or from working longer hours than is consistent with a healthy system. It is acknowledged that these are factors that go to swell the victims of the white plague. If people were to fall in love with fresh air, sunlight, wholesome food and cleanliness in their youthful days, and regulate their hours of work as many do after contracting the disease, the demand for sanatoriums would be much less. A great interest is being taken in the erection of sanatoriums for pulmonary phthisis, and, while I hope that it may continue, I feel that the work in this direction should grow less and less from year to year as the death rate becomes reduced. The great arteries which keep up the supply of consumptives pulsate stronger and stronger in many places. If ever we can boast ourselves a great people, and vie with other nations, if ever we can sustain the reputation of our country for prowess, for culture and refinement, it will be by so altering, so modifying the strenuous life that we live that we shall not permit any feeding grounds, any culture grounds, for the microbe, that we shall be able to remove all sources of the dread malady. It does seem that while great efforts are being made for the cure of the afflicted, our thoughts, our energies, are not sufficiently concentrated and aimed at the faults of our national life in many respects.

You are all familiar with the harrowing details of the lives of the children in the coal regions of our neighbors to the South during the great strike of the miners three winters ago. I need not repeat here that these mines were veritable hot-beds for the spread of the white plague. The coal mines are not the only culture grounds for the dire disease. I may refer you also to the culture beds of the cotton mills of the North and the South, where child labor has been and is much in evidence. But why, you may say, am I talking about my neighbors? Are we as a province free from the culture beds? As you are aware, I belong to a town which is noted for its woolen industries. It possesses the largest woolen mills in our fair Dominion. I would like to say that our civilization, our Christianity, was of that type that we could boast that we are abreast of other people, other nations, that we are living in a land where there are no culture-beds—no culture grounds—for the white plague, in a land where child labor is

unknown and where our neighbors cannot point at us the finger of scorn. My fervent prayer to-day is, would it were so. After all the churches that we see towering above us, the magnificent works of the architect, after all the efforts of our various leagues with their Christian influences, after all the sermons that are preached and prayers offered up, to say that we are living in a land where child labor exists is to say that a most lamentable condition of affairs exists, and that our neighbors can point at us the finger of scorn, and that we, too, lack much that might strengthen and support the props and bulwarks of a great country. We are much indebted to some of our noted women for some of the greatest reforms the world has ever seen. What was it, I ask, moved the world to the abolition of slavery more than anything else, and made Lincoln free the slaves, if only as a matter of military expediency, if not the writings of the author of "Uncle Tom's Cabin"? No one has written more strongly or more pathetically on behalf of growing childhood than Mrs. Browning in "The Cry of the Children." I will give you but two lines:

> "And they look up with their pale and sunken faces
> And their looks are dread to see."

And yet there are those who cannot see that the factory labor of children is slavery. In Greater New York, we are told, some sixty thousand school children go hungry every morning to school. It is needless to say they are unfit for their work. In Great London, we are told, the number is vastly greater. In Toronto—well the latest report has not been handed to me. In regard to this matter a prominent weekly paper, published in Toronto, states: "Of the many terrible things in some of our great cities this is one of the most awful to contemplate." I need not enlarge on this subject. The result is self-evident. Is it any wonder that many systems are vulnerable to attacks of the white plague and other diseases? The work of prevention seems almost insuperable, but it should not be so. If we could but eliminate from the make-up of the individual and our nation's representatives the words "grasp," "graft," and "greed," and we possessed more of the altruistic spirit, our national life would be in a more healthy condition and the gaols and the tombs would have fewer occupants. If our children starve, our nation cannot be well developed. We must build up a nation by building up the individual. We must have a sound body for the in-dwelling of a sound mind. Inasmuch as a nation is made up of individuals, as matter is composed of molecules, the perfection to which we bring each individual goes far to establish on a firm basis the bulwarks of a nation. Any nation that will permit or encourage child labor is bankrupt morally, socially and politically. With the lamentations of the mother and daughter ringing in our ears, may Canada show forth to the world her greatness, her godliness and emancipate this fair province of

ours from the disastrous consequences of the white plague, and may we be first and foremost in this respect among the nations of the earth. It would go a long way to strengthen the bulwarks of our nationality and help to produce a healthy, happy and contented people.

I would not like to admit that in the early history of the world physicians were a much better class than exists to-day, but it is indisputable that in olden times people lived as many hundred years as they now do tens. How is it? I would not like to say that they had better Boards of Health. I can only answer that there is a Divinity who is the Author of natural laws, that natural laws are Divine laws, that there may be an alteration in our well-known laws governing youth and old age by the Divine will, and that the cycle of life of the present time as compared with that of the olden times is a vivid illustration of the fact. Natural laws are God's laws, and if the Almighty sees fit to change the laws of the properties of matter, it will be done, as it was done, in the shortening of the natural period of our lives.

I feel that I would not be doing my duty if I did not call your attention to a most pressing matter, that of the indigent and wealthy inebriates. This subject should not be disregarded or passed over lightly. The Ontario Society for the Reformation of Inebriates should receive our strongest support, and I sincerely hope that the Government of to-day will see its way clear to aid this Society and help to carry on the work which it is endeavoring to accomplish. While here again the prevention of inebriety should not be lost sight of, a great advance would be made in the citizenship of our Province if we were to put in force the measures adopted by Great Britain and the United States. It is well recognized that what many an inebriate needs is to be placed where he cannot have the source of his trouble and be treated with that sympathetic kindness that he needs, and he will be grateful for the help given him. No one can help feel, if the wishes of the Society could be carried out, another strong prop would be placed in our nation's manhood. But I would go farther—I believe that the wealthy inebriate would be very grateful if taken care of. The inebriate in many cases only requires to have the proper restrictions enforced. The inebriate himself frequently desires the restrictions, and there are cases where it may be said that the inebriate has lost his self-control, has not sufficient moral force left to impose the restrictions himself, and what is needed is that he shall be taken charge of by his friends and the restrictions carried out for him. This cannot as a rule be done without adopting some one or all of the measures the Society has proposed. I hope that the indefatigable worker of the Society, Dr. Rosebrugh, and the other members will soon have the satisfaction of knowing that their efforts in this direction will be crowned with success.

Another matter that should not be lightly passed over is lodge practice. In regard to lodge work I have long since expressed

my views. Some may say that I should not express myself because I have never taken up lodge practice—it is not necessary to practice an evil to know the evil. The so-called free attendance is no doubt a drawing card on the one hand, and the prospect of an immediate clientele of patients an alluring bait to the young practitioner on the other. My own opinion is that lodge practice has no redeeming features. Not many years ago the Supreme Chief Ranger of one of the fraternal societies in one of his addresses stated that the free medical attendance—I do not use the term "free" absolutely—saved his order some millions of dollars. I only wish to state that this would have been a nice fund for the fatherless and the widows of the deceased members of our profession. It is only too well known that many in our profession, faithful workers during their lifetime, have left but a pittance to their loved ones. I do not hesitate to say that both the fraternal societies and the physicians would be on a more enduring basis, on a more solid foundation, if the societies had their benevolent funds with the lodge physician left out. It is so in many, if not all, of the United States, and from them we might well take a lesson. And just here I would wish to state, what will commend itself, I am sure to everyone, that in many cases a trained nurse should be engaged by the order instead of drafting members who have been at work all day to do more work at night. The interest of the patient demands it, and just here let me state that a great deal of the success of the physician is due to the trained nurse. The trained nurse has come to stay. If anyone wishes to pursue this subject further I will ask those of you who have not read the last chapter of Dr. John Beattie Crozier's work on "My Inner Life," to do so. There you will find a better statement than I can give you, and in the language of a well-known writer, of the disastrous results of lodge work or club practice as it affected him in his home in England. Dr. Crozier is a graduate of Toronto University of '72, of the same year as our lamented Zimmerman. Our Osler was of the same year, but left us for McGill at the end of his second year. Dr. Crozier, as many of you are aware, was an old Galt boy, and is now receiving an annuity from the British Government for his work as a philosopher. Crozier's work at the G. G. S. helped to stimulate many a less apt student. He has done much research work, but it was hunting for an ideal. Had he turned his attention to medical research I have no doubt no microbes would have kept out of his way. I think, however, you will find his writings in regard to lodge work solid. Crozier is one of Canada's famous sons, of whom we have great reason to be proud.

A short reference to another subject, and I am done. You are well aware that there could not be a more important subject than public hygiene, and especially that part of it which comes under school hygiene. It needs a great deal more attention than has been paid to it. The hygiene of the schools is in a somewhat crude state, and a little more attention would bring the sanitation of our

schools up-to-date. Our knowledge of what is required is not deficient. It seems a matter of neglect pure and simple. A Minister of Health, which we have not yet, would be one of the most important portfolios that any Government could have. Good health is one of the greatest assets that an individual or a Government can possess.

Many subjects I must leave untouched. It is well understood that in the medical profession there must be a division of labor, but whatever department we pursue we must do so with "prudence, promptness and patience." These are the graces of the soldier, so well described by Miss Harris. They may well be the graces of the physician, for the practitioner of medicine in its widest sense is a soldier always, a combatant, fighting the enemies of life, striving to keep death as far off as possible. Even on the battlefield he never shrinks from danger; he is doubly, thricefold, a combatant. A parting word to doubting ones. The thought that the cycle of life, changed as it is to a short period, is manifestly due not from any want of skill on the part of the medical profession but to a Divinity, to God alone, does not need a very strong faith to believe. It is proof itself, and if we believe in this great change of the cycle of life, why can anyone take exception to the Immaculate Conception, the Resurrection and the Ascension? Contrary to much that has been said of the physician's belief, he has certainly been one of the strongest supporters and exponents of Biblical history. We have been placed here to work out many problems, and if we make use of the means of research that have been given us, the mist and the clouds which hang over us may be cleared up, and it will be given us to know much of what is seemingly mysterious. We have no conception of such phrases as *boundless space* or *in the beginning.* It may be given us to explain much that is now mysterious, but it will only be done by honest, faithful work, not by the methods of so-called Christian Scientists, but by the labors of those who will enter the great field of research work in Nature's laboratories and the special laboratories for research.

THE AMERICAN DISEASE: AN INTERPRETATION.*

BY WILLIAM BROADDUS PRITCHARD, M.D., NEW YORK.

MEDICAL nomenclature, certainly as regards names for many diseases, stands to-day the most neglected, the most incongruous, the least rational and the least progressive of all the minor divisions of the subject. Many of those most familiar justify a continued existence solely through the fallacious law of traditional custom. In some instances, both name and disease being inelastic—typhoid fever or epilepsy, for example—no special harm is done. In others, as hysteria and chorea, we continue to insult intelligence apparently without either consciousness of shame or hope or desire for reform. There is something of promise in the tuberculosis of to-day rather than the consumption of our fathers, but much remains to be done, the work having scarcely begun. The field of neurology, perhaps more than any other, needs the scythe and pruning hook. The latter instrument could, in my judgment, be used with particularly beneficial effect if employed vigorously and with discriminating judgment in neurological nosology. Its first work, if in my hands, would be to clip and trim and shape into at least some semblance of definite form and substance that phantom, once a tree, now a forest and rapidly becoming a wilderness, so rank and riotous is its growth, neurasthenia. No shorter road to nervous prostration exists than along the route of present interpretation and mental comprehension of the term as generally understood or misunderstood. I confess to an antipathy—I think rational though amounting almost to an obsession—for the word. Originally intended to possess a definite significance, its field of application has been so elaborated and broadened and abused that to-day it means almost anything and with equal truth almost nothing. The inspiration which gave it birth marked the genius, but the child has grown a monster, fattening upon the flesh of hundreds of brothers and sisters, and even its cousins. It is still from custom classed among the neuroses or psycho-neuroses and thus the special property of the neurologist, but like its twin sister—the only sister left, by the way—hysteria, it has wandered afar with an omniverous appetite and is known to-day and claimed in some one of its hydra-headed forms in every field of medicine. To the stomach specialists belong the gastric and lithemic types, to the surgeon the post-operative and some of the traumatic cases. The sexual neurasthenic is the property of the genito-urinary specialists, the reflex cases are almost equally distributed to those who know the eye, the ear, the nose and throat, while the neurologists divide the remainder with the gynecologists, or play battledore or shuttlecock with all. The general practitioner alone is counted an

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invader in this field, and he, wise man that he is, with appreciative philosophy rarely feels himself aggrieved.

My criticism is not of the term etymologically. On the contrary, properly restricted in interpretation, it is an excellent example of word-making, It should stand, however, for either fish, flesh or fowl—for a definite entity or syndrome—if retained in our nosology. If discarded in this field, by all means keep it, but restrict it to the broad, descriptive significance of a generic term alone. I am not yet willing to accept the dictum embodied in the recent paper of an eminent American writer who, with a stroke of the pen, announces the passing of neurasthenia, for which he would substitute a group of pure psychoses, if for no other reason than that he leaves us none the better off for such a begging of the question; and yet one is almost tempted to let it pass away into final oblivion and without a protest on reading a serious thesis by another recent writer upon neurasthenia in babes. If it is to continue a neurological and general medical waste-basket into which we are to dump all forms and degrees of illness associated with irritable, nervous weakness to which we cannot attach a standard label, then it cannot be lost too quickly. It means to-day to the student mind mystery, confusion, chaos and correllated aversion, curiously mixed with a contradictory fascination; to the patient it has become a term full of suspicion; to the medical teacher it is a term of reproach. No observation or experience during my fifteen years of post-graduate teaching has been more emphasized than this attitude or mind of the student body. Year after year and many times a year, the cry has been the same from all my classes: "What is neurasthenia?" I think you will agree with me that something should be done. The solution of the problem to me seems relatively simple. Let us stop running after strange gods and the making of false idols and return to the worship of our fathers and to one faith. There *is* a nervous affection—the very same which originally inspired Dr. Beard to coin the word, with a broadly constant symptom picture, a more constant etiology, a conjectural pathology, a fairly certain prognosis and a definite plan, in principles at least, of treatment, the chief and essential symptomatic manifestation of which is an irritable, quick exhaustion of nervous function in many or all directions. It has become almost lost, it has suffered degradation, it has fallen from the genus to the species in the literature of the subject, not so much through intrinsic conditions, but because of the confusion and chaos of interpretation. The dignity and importance of this subtype, its rapid and progressive increase, the charm and fascination of its study and of its remedial and curative treatment are such as justify and, indeed, demand that it be taken from this chaotic mass and be given a distant identity. Let *this* be neurasthenia. We shall simply give back to Cæsar what was his, lost property to the original owner. It is but the restoration of the birthright. How the thief will cover his nakedness is his problem, not ours.

I have but borrowed for a purpose my title, and having explained my motive, I discard it. And yet it is not altogether bad. That it has the ring of cheap sensationalism is a just criticism, though nothing was further from my mind, a disavowal which I hope has been anticipated and is accepted. In much that the condition that I have in mind represents, in much that is peculiar to this affection—to neurasthenia—the term, the American disease, is both accurate and appropriate. As I conceive it, it *is* an American disease indigenous to this soil and essentially a product of causative conditions peculiar to this country. That it now exists elsewhere, and probably always did in sporadic form I do not doubt, but this is its home, this its soil, this the atmosphere in which it luxuriates. What is this disease? What are its symptoms? How differentiate it? What is its etiology and prognosis, and how is it to be treated? My limit of time will permit me to create the scheme of the picture only, but if the viewpoint be the proper one and the perspective liberal in breadth, any one of my audience will, I am sure, be able to do the filling in. I would count my work well done and a good end accomplished if I did no more than infect you with the enthusiastic interest with which the subject inspires me. In the effort to do so I shall create part of the perspective referred to. First as to your material: Neurasthenia never occurs in fools. The idea constitutes a paradox. Neurasthenia may make a fool, but you cannot make a fool a neurasthenic. It is a disease of bright intellects, its victims are leaders and masters of men, each one a captain of industry. Each case is unique as a study if you are to study helpfully. There are no arbitrary limits to the horizon of studious effort. The political history of the world has been made largely by paranoiaes. Mahomet, Peter the Hermit and Oliver Cromwell are examples in point, to go back no farther. In each there was an imperative and an impelling monomania. The world of literature, of art and of science, of fruitful endeavor in all higher fields, is indebted in an analogous degree to the neurasthenic, analogously endowed with an imperative and an impelling energy. Dr. Gould's list includes such names as Carlyle, Wagner, Huxley, Spencer and many others. The confidence, the faith of patients of this type, is to be classed as an inspiring stimulus in itself and is well worth the struggle to grasp understandingly this subject. That yours is the helping hand depended upon by such men—such giants—whom you may lead as little children; the knowledge that you, and sometimes you alone, may bring back into the world's arena of action and into the old supremacy, such factors in the world's work, represents to my mind an objective, a purpose, a sphere of usefulness second to none of the many laudable ambitions along the highest planes of medicine.

In painting the clinical picture it would mar my scheme to paint an individual likeness. I shall give you first the basis for a composite photograph, made up of the case histories of fifty selected patients from private practice. Forty-two of these were American

born, the remainder, 8, with two exceptions, had been residents more than fifteen years; 22 were from New York City, 4 from Connecticut, 3 from Massachusetts, 5 from Pennsylvania, 2 from New Jersey, 5 from as many different Southern States, 1 from Canada, and the remaining 8 from as many different sections. Forty-three were from cities of more than 100,000 inhabitants, although only 21 were city born. The average age was 37, the oldest 62, the youngest 26. Without a single exception all were brain workers. Sixteen of these fifty had been makers of history in different spheres, some large, some small; mercantile, literary, religious, scientific, political or economic. Two of the number were among the hundred captains of industry assembled in a list made to commemorate a national function celebrated a few years ago. By occupation 13 were financiers, in multiple mercantile lines, really better described as promoters; 6 were lawyers, 3 clergymen, 2 merchants, 5 physicians, 5 brokers, 4 school teachers. Of the remaining twelve, 2 were professional politicians, 2 corporation officials, and 4 managers of large industrial plants. Four of the fifty were men of independent, self-acquired means, who described themselves as having no occupation at the time of record. They have been included in the groups mentioned according to previous occupation. Four of this series were women, 1 a journalist, 1 an actress, and 2 of them teachers. Fourteen of the fifty were unmarried, the age average of this series of fourteen being relatively high, forty-four. The four females were all childless, though two of them were married.

Instead of an analytical elaboration of individual symptoms, let me give you a standard clinical history selected from the series of fifty as a type portrait.

M., aged 33, male, born of healthy good stock, American parentage, the only handicap being parental poverty. Driven by necessity and by that subtle factor, temperament, to early effort in extraordinary degree, he acquired the strenuous, ambitious, high tension, keenly sensitive habit. He could not afford a liberal or broadening education because his own dollars paid for it. At 19 he was in business as apprentice in a large establishment manufacturing mechanical engineering appliances. At 26, with a capital of $500, he organized a company, had it incorporated, was president, secretary, treasurer, superintendent, salesman and chief stockholder, entering into competition with established and lavishly capitalized rival corporations. Awake at 7, he hurried through breakfast a few minutes later, mixing an omelet with an order or a countermand, assimilable sometimes with the former, always incompatible with the latter, taking in with his coffee the London market or the Paris bourse, dividing the steam supply between brain and stomach when it should have been all turned on at the point of physiological demand. A hurried walk to the train, possibly a delusional constitutional in this very walk, the steam being still turned on to the top floor. In the office a pile of mail,

interviews with clerks, orders, directions, instructions, detail work in every department. Just here *en passant* is laid the immediate foundation of the breakdown It is the man of detail, the man great in everything except the qualities which make the general, who becomes the neurasthenic. It is the crime of attending to minutiæ which makes the nervous derelict. The general is never a neurasthenic. It is the one flaw in the statue of true greatness. That quality, the highest, which helps us to select our lieutenants, is always lacking. The neurasthenic is the archetype of the poohbah. He is not only general, but also colonel, major, captain and private. The penalty is inevitable. No man can do the work of four along higher lines without paying for it.

After four hours in the office this man goes to lunch, tired, nervous and with preoccupied mind. He takes his secretary or manager, and again the attempt is made to mix a steak or an omelet with a business problem. The steam is still turned on at the top, our patient eats fast and drinks a lot of water or other fluid, prematurely flushing the contents of the stomach into the intestine. Already by nervous inhibition he has interfered with biliary and other secretions. The intestine, the duodenum, cannot take care of the albumenoids—the proteids—properly. It cannot take care of its own. The alkaline reaction of duodenal secretion has been upset by the flushed overflow of acid gastric juice, the secretion of bile has been inhibited by the state of mental tension and the diversion of energising agencies from digestive viscera to brain. Fermentative decomposition with resulting ptomaine and toxine formation follows, deficient nutritional assimilation plus chemical irritation are added to cell fatigue along a routine line without rotation. Notices of protest begin to come into first subconscious recognition, but are disregarded. They may come from any one or many sources. Headache of the cincture or helmet type, vertigo a sense of irritable weakness, mental and physical follows; vague, mysterious messages in a strange language, never heard before, are received but not understood. This patient has always been well and has had no training along the lines of familiarity with symptoms. These messages at first ignored, sometimes hushed with a cocktail or a highball, or many of both, become more and more continuous and imperative. The habit of almost mechanical activity of mind projects itself into the hours for sleep. Insomnia develops, at first as dreamful, anxious sleep, then with fitful, broken sleep, and later with an allowance cut by more than half from the normal. He wakes tired, irritable. The pneumogastric is one of the first and often the most emphatic of the aggrieved protestants. Palpitations, overaction, an irregularity partly toxic, lay the foundation for what later has become an obsession of fear of sudden death—heart anguish. He fears to be alone, to walk alone, to sleep alone. To this other fears have been added. A perfectly legitimate dizziness has laid the foundation for an almost hallucinatory persistence of this impression. Rapid

motion, as in the cars or a carriage, high places, sudden changes in the visual perspective, originate as many phobiæ. Every nerve gets on edge and this hyperesthesia of auditory, or visual, or olfactory, or gustatory, or pneumogastric nerve, varying, as it necessarily does, in degree, gives explanation for the proteon system picture. It is the mystery of it all which leads to introspection in attempts at explanation, and finally to an exquisite exaltation of subject consciousness, a veritable delirium of anguish.

Neurasthenia is essentially a recoverable affection. In a majority the recovery is complete and final. In a few, usually neglected or mismanaged cases, the recovery is imperfect, relapses are common and the neurasthenic habit becomes almost a part of the individual. Even in these cases a steadily progressive tendency to recovery and to a normal poise as the final fixed habit may be established by persistent effort based upon an intelligent understanding of the general principles of treatment plus an appropriate application of such principles to the personal equation of the particular patient. Neurasthenia carries with it no penalty to succeeding generations. This statement is contrary to *a priori* reasoning, and also contrary to routine teaching and unthinking or ignorant belief. It is a statement based, however, upon careful observations in an extended experience, and I believe it to be absolutely true. The victim pays the whole penalty; the disease is free from the law of entail. The high average standard of good health and nervous poise in the children of neurasthenic fathers has been a frequent personal observation.

I do not believe that any individual case of neurasthenia ever originated in a single cause. The very essence of the affection makes such an hypothesis a paradox. Equally true is it that no single agency is sufficient to explain the prolonged maintenance of this condition. Any one of many causes may appear to dominate in a given case and for a given time, but the carefully studied etiology will prove a complex one in every instance. The list of stereotyped and empirically accepted causes is a long one and undergoes a progressive expansion from year to year. Overwork, worry, prolonged mental tension and anxiety, malnutrition from deprivation of food, sleep and rest, toxemia of autogenous and heterogenous sources, shock, trauma, reflex irritation, and as many more are on the list. Most of these are contributory factors only, and some are effects which are essentially secondary, being part of a vicious cycle, vicious in fact and even more so in interpretation. The insufficiency alone of any of these factors is tacitly admitted in the usual statement that an hereditary predisposition is fundamentally necessary, a proposition not sustained in my own experience, though carefully investigated always. Neurasthenia is, I believe, essentially an acquired state and heredity, except of temperament, and a high grade cortex is an almost negligible equation. My chief criticism of the ordinary etiology as outlined is the narrow viewpoint with resulting technical limitation in treatment.

What is the cause of these causes? *The* factor in neurasthenia in the American disease—the factor common to all cases—is, broadly, that of atmosphere—the atmosphere peculiar to this country, the atmosphere of limitless possibilities, not in one field, but in all; in commerce, in art, in literature, in every field of intellectual accomplishment. It is this ether of limitless possibilities which stimulates the individual to a degree of effort, of tension, of strain, of superstrenuous endeavor, impossible and unknown, except by the infectiousness of example elsewhere. There is no limit to the game, and anybody may sit in. America is the only country in which you can go in with one white chip and have a chance to quit the biggest winner. It is this atmosphere which is the incentive to overwork. It is the anxiety, the tension, the strain of the game, which brings worry, loss of sleep and all the rest; and even here the penalty comes indirectly. The intoxication of endeavor, the delirium of effort, is at the expense of all conservatism. The laws of nature—inexorable as fate—fate itself in fact, are violated not daily, but every hour. The hygiene of life is set aside. All kinds and degrees of insult are offered to brain, stomach, heart and every other organ. Day after day the steam is kept turned on and at full pressure to the one floor, and, worse still, often to the one room. Is it any wonder that all the rest of the house grows cold, or that, the power being insufficient, the machinery of the lower floors works poorly and makes poor goods? Every function suffers sooner or later. One after another, and sometimes several together, they protest, then openly rebel and finally go on strike. Indigestion, toxin and ptomaine formation, torpor of sewerage function and resultant, defective elimination add the element of chemical irritation, or autoxemia, or lithemia, to the situation. The tired brain cell gives way under this added handicap and goes out on sympathetic strike.

The accident of dominating symptoms in a given case is but rarely of any value in determining the etiology. Gastric and lithemic and other types may be recognized and distinguished symptomatically with some minor advantage, but no more serious error of interpretation exists than to conceive of them as primary etiological types with a correllated therapeusis. Anti-lithemic drugging will not cure a lithemic neurasthenia nor will lavage make well your so-called gastric cases.

I have again and again noted a urine with specific gravity above 1,030 with 14, 16, 18 and even 20 grains of urea per ounce, with lime oxalate and urates in abundance, all these conditions giving way to the normal under direct treatment, the neurasthenia remaining essentially unchanged. I never knew a sexual neurasthenic, so called, to be cured by any plan of direct genito-urinary treatment, and this statement applies with equal truth and force to all efforts (and I have seen many) to cure the reflex cases by removal of a supposed cause in any peripheral irritant.

I know of no condition in medicine which demands more ex-

actingly of the physician all the diagnostic resources of the profession, and yet mistakes in diagnosis should be rare. The symptomatic semblance of neurasthenia—the pseudo forms—which may sometimes present much of the picture, but will always show a radical omission or addition somewhere, should always be in mind and should be excluded carefully seriatim. More than one patient referred to me as a neurasthenic has been found to be the real victim of tuberculosis, of malaria, of Bright's disease, of gastric ulcer or some other similar affection. Anomalous forms of Basedow's disease in women and various toxic states among men have represented especially common mistakes in diagnosis. Paretic dementia in its incipient stages and some forms of melancholia, particularly the affective types, demand special mention. A guarantee of escape from the opprobrium of error as to the pseudo types is possible only through an exhaustive recourse to all measures and methods of accurate information. Elaborate urinalysis, blood examinations and often examinations of the sputum is a routine procedure with me. In any case in which the dominant symptoms are referable to a particular function or organ persistently, I am proportionately suspicious of a local disease at least complicating the general state. It should not be forgotten that a neurasthenic may have a coexistent Bright's. In Basedow's disease which, as we know, may utterly lack the spectacular symptoms, the absence of goitre and of exophthalmos may easily lead us to interpret the nervous irritability, the quick exhaustion, the fears, the digestive and other functional disturbances, the loss of sleep and the widespread vasomotor symptoms as due to a neurasthenia, but the habitual quick pulse, the shallow respiratory action, the diarrhea and the *tout ensemble* of constancy in the picture will always give rise to doubts which will be converted into negative certainty when the etiology is considered. From paretic dementia we can distinguish neurasthenia by the presence in the former and the absence in the latter of organic signs. No matter what the degree of incipiency, if the disease has advanced to the point of inducing symptoms, we shall find in paresis somewhere some of the physical signs. Special care should be observed in the melancholic (by the way, the majority type) forms of paresis. In melancholia we have, no matter what the subtype, a constant syndrome; a characteristic facies, a post-cervical ache, a shortened sleep, an irrational melancholy and a tendency to suicide. In neurasthenia this facies is absent and the tendency to suicide is rare. Melancholiacs get to sleep as a rule with but little difficulty, but wake too soon, at 2, or 3, or 4, and sleep no more. In neurasthenia they sleep lightly, dream much and wake often. The post-cervical ache may belong to both, but in neurasthenia it is often a cincture or helmet headache, quickly dissipated by mental diversion. The neurasthenic can laugh, the melancholiac cannot. For a melancholiac to laugh is to refute the diagnosis. From myasthenia gravis it is to be distinguished chiefly by the absence of dominant bulbar symptoms.

What is the pathology of neurasthenia? The answer is almost anyone's guess, and yet to know the lines of experimental research and investigation already established is a long step in the direction of what will finally prove the correct guess. The work of Hodge, familiar to you all, was a far call in the right direction, and while it has given us no final solution, it probably paved the way to the yet to be demonstrated pathological explanation of these cases. The effects of fatigue, of worry, of irritation, upon the brain cell structure was proven to be actual and demonstrably so, by his work. Barrows has added observations which demonstrate with equal positiveness, the structural and sometimes actually organic changes and results which follow to the cell from malnutrition. All neurasthenics, it should be remembered, are examples of malnutrition from faulty assimilation and metabolism, usually secondary. The work along chemical lines with a final explanation in states of auto-intoxication promises much, but that which appeals most strongly, even though as yet it offers least in a tangible, material way, is a combination of the others with an imaginative elaboration of the ion theory. The analogy of the highest governing nervous system with a telephone service in a large city has occurred to many, appeals to most of us and is familiar to you all. We have all been able to grasp mentally some conception of the power plant, the conducting wires, the receiving and transmitting station of the subscriber and a central, but the plan of a central switchboard is where we stop. The hello girl of the central station will not do. She is too unreliable; she goes to sleep on post; she talks distracting gossip; she has no sense of duty at times. Her sole stimulus to duty well done is often the approval of the inspector only and the $10 per week. Neurasthenics don't gossip, they don't go to sleep—more's the pity—and yet the switch gets out of gear and you cannot get a connection, or if you do there is a buzz and you can't understand which stands for the weakness: to which we might add in carrying out the analogy, the usual profanity, to represent the irritability. Mendelssohn, Frankhouser and others, in attempts to give a tangible, graspable explanation of electrical action upon nervous function, have advanced and elaborated what might be called the theory of wandering ions. You will recall that, when first announced, the neuron theory, in addition to facts proven, claimed, but did *not* prove a distinct individuality for each neuron, with no anastomosis anatomically with our neurons. This undemonstrated claim was unaccepted for the reason that it left less explained than before the observed and familiar facts of concert of action and synergistic relationship of nervous function which seemed to demand some anatomical connection. Imagine bodies endowed with autogenous mobile life, which stretch an arm from 1 to 5, or A to G, wandering about with a restless usefulness, connecting two separate souls who want to get in touch in the same way but with infinitely more of reliability, as the central hello girl connects you up with the number you send in from the transmit-

ting phone. Imagine these little bodies goaded day after day to extraordinary effort, allowed no rest, no sleep, whipped by alcohol, or tobacco, or coffee, suffering from deprivation and irritation in every way, rations served foul, working for a thoughtless, selfish, utterly inconsiderate master. Do you wonder that they get discouraged, tired, exhausted and confused, taking messages wrong, turning in a fire alarm here, calling in the police there, doing many things which they should not do and leaving undone those things which they should do? Very pretty, you will say, but fanciful. I admit it, but I deny any more of fact in any other theory.

The first step—the essential foundation of any plan of successful treatment in neurasthenia—is the establishment of a proper relation between physician and patient. The status of the physician should be firmly established before the question of treatment is considered at all. He will have laid the foundation of any plan of successful treatment well in a direct ratio with the thoroughness, the exhaustiveness of his diagnostic examination of the patient. Nothing should be taken for granted—no second-hand information should be accepted. At the risk of being tedious, examine for yourself. Five minutes or less is often more than sufficient time for a final diagnosis in paresis or tabes—two hours is often time well spent in the first examination of a neurasthenic, and this is true even in the instances in which as many minutes only have been necessary to convince you of the nature of the case. Remember there are two parties to the transaction. Your own enlightenment is not the only requisite. The neurasthenic always takes himself and, at least, some of his symptoms seriously. To tell him abruptly that this or that means nothing is not convincing to him, however true to you. No obvious foundation has been laid for so positive a statement in so short and superficial an examination. To you many of the symptoms are distorted by exaggeration, to him they are real. Do not forget the axiomatic fact that neurasthenia does not develop in a fool, and as corollary to this fact make your appeal to the intelligence of your patient. Explain things; give the patient something tangible to grasp, some explanation which appeals to reason. He will leave the ether of imagination and come down to the terra firma of fact gladly. The effect at first may be upon the subconscious ego only, but the leaven of action will later rise into controlling consciousness. The physician, by the way, should never think, or believe, or guess; he should know. Therefore, he should lay at least a plausible foundation for such knowledge in a patient examination at the first interview. It is just as important that a reverse attitude should be the rule thereafter. Discuss with your patient in subsequent interviews every topic conceivable except his ills. At stated intervals go over the case objectively, taking an account of stock. Where favorable progress is noted, not only mention it—prove it; if still *in statu quo*, explain the delay in results. Silence is rarely golden in such situations. Equally important with this factor or proper relation-

ship between doctor and subject is the control of the patient's environment. Just which is proper varies with different cases, but once settled, it should rarely vary with the case. Compromises and concessions are always dangerous. The patient's hand should never touch the tiller, once you have taken charge of the ship. First, place him so as to minimize the influence of all adverse factors, domestic, financial or otherwise. Break up, as far as possible, all subtle or obvious factors which contribute to a morbid introspection by conscious or subconscious association. Encourage objective consciousness by a change in the physical and mental atmosphere. Sometimes this must be done radically, and the patient cut out from the family or from his business. Never leave him alone, and never leave him idle. Put with him a tactful, resourceful, sensible, attendant — train your own nurse, by the way—train him over again, if a hospital graduate. Don't call him a nurse in any event — neurasthenics resent trained nurses. Give all your instructions to this nurse-companion—never to the patient, who should have nothing whatever to do with his case. Arrange all details of diet, of exercise, medicines, baths, diversion, etc., with the nurse. Give your patient a chance to escape from a knowledge every hour of the day that he is a patient. Keep him busy, fill in every minute of the day. A salt rub in the morning, the patient standing in eighteen or twenty inches of hot water, three minutes of practice in deep breathing exercises, after which comes breakfast. All meals should gradually be made as full and as nutritious as possible. I observe idiosyncrasies, but no other law of special diet. After each meal from twenty to thirty minutes of recumbent rest is insisted upon — a habit observed by nearly every carnivorous animal, except man. Next comes the daily visit to my office, with treatment by the galvanic current, one electrode back of the neck, the other over the forehead, both as large as possible, in order to get the utmost diffusion at the point of contact and thus a maximum of electricity with a minimum of discomfort from local action. A steady battery, a rheostat, a meter, and proper electrodes are absolutely essential. Part of the benefit is undoubtedly due to suggestion. This is a small part, however, by comparison with what I am firmly convinced by years of careful observation to be an intrinsically dynamic effect of sometimes striking benefit from electricity thus administered in these cases. I never exceed five milliamperes in amount, or half an hour for the seance. Usually I begin with one milliampere and a five-minute seance. On leaving my office, my patient goes direct, riding or walking, according to circumstances, to a gymnasium, the director of which, Dr. Watson L. Savage, is a medical graduate, whose life-work has been given with enthusiasm to the co-operation, elaboration and perfection of a plan, which we both believe will, when perfected, prove a specific, curative treatment for these cases, a proper environment and control being the only other essentials. By this plan of psycho-

physical, educational control, we secure, by the indirect method, what is always difficult, and often impossible, by any direct plan—a lowering of tension, a mental relaxation, a return to rational inhibition, to order from chaos. These patients are taught the lesson of physical, muscular relaxation—how to lie down, how to go through the mattress to the bottom, how to turn loose physically. That the muscular system is energized and overkeyed into states of hypertension through sympathy with states of mento-nervous exaltation is familiar to us all in the tense mouth, the corrugated brow, the clenched hand, the restless walk. We simply start at the other end, and re-educate the higher through the lower. The quickest, the surest, the most rational way to key-down a man mentally, is first to key him down motorially. I have waited for ten years of results to accumulate before announcing publically, except in the lecture room, the value of this procedure. I give you no experimental theory. My unqualified endorsement is based not only upon a rational conception but many confirmations in experience. I count this part of the plan of treatment in neurasthenia one of the most positively helpful and essential of all the major details. The afternoon, following lunch and another half-hour of rest, is spent out of doors—a drive, a horse-back ride, golf, tennis, a walk, a visit to some museum or place of public interest: a shifting from one to another of these various diversions, largely based upon the personal equation of temperament and aptitude in your patient, fills up the afternoons. In suitable cases part of the evening must be filled, and occasionally the theatre or a concert can be utilized, but never at the expense of sleep, if insomnia be present. A half-hour of massage at bedtime closes the day's work.

This one symptom, insomnia, must be controlled always. Make your patient sleep—count a dreamful night insomnia. Veronal, trional, sulfonal, in 5, 10 and 15-grain doses are effective and satisfactory. I often shift them. All should be given in some hot menstruum. No nervous patient should ever know his drugs—send the prescription yourself, and always mark it, "No copy. Do not repeat." Fifteen years ago a few neurasthenics under my care came back to health and nervous poise in spite of the drugs which I employed in treating them. For five years past, using less than half the drugs, my percentage of recoveries has increased fourfold. Drugs play a varying part—sometimes no role at all, again a vital one. Some patients demand them, others are indifferent, and still others need them neither mentally nor physically. Sleep must be secured and maintained, elimination and prompt sewage function regulated and complicating accidents combated. For temporary use, until the regime outlined becomes effective in lessening it, the mental state of unrest and hyper-psychical esthesia should be controlled, and the drug which most effectively accomplishes this purpose is opium in the form of the denarcotized, aqueous extract in doses from one-tenth to quarter-grain three or four times daily. Free water drinking between meals is a desir-

able habit to encourage and a positive water, always symptomatically remedial in cases in which lithemia is an aggravating factor, is the Royal Fachingen. I do not believe in the sanatorium treatment of these cases as I know sanatoria. If the ideal sanatorium existed, the sanatorium plan would be ideal. I add nothing to your personal knowledge, when I tell you that such an ideal does not exist. I can conceive of no more fitting nor important statement in conclusion than one of condemnatory criticism of the misapplication of the Weir-Mitchell plan of rest and isolation in these cases. It is to be condemned first, as involving the conception of a *routine system or plan* of treatment; second, as encouraging introspection; and third, as violating in principle all intelligent interpretation of the whole subject. For women and feminine males it will do no harm; for men and masculine women it is an insult to intelligence.

Pharmacology and Therapeutics.

IN CHARGE OF
A. J. HARRINGTON, M.D., M.R.C.S.(ENG.)

TREATMENT OF UTERINE BLEEDING.

DR. H. J. BOLDT, of New York, read a paper before the Southern Surgical and Gynecological Association, supplementing his former report on the use of cotarnine hydrochlorate—which is called styptiein by its introducer, Dr. Martin Freund—in various cases of uterine hemorrhage, his opinion of the therapeutic value of this medicament being based on seven years' experience with it. He first briefly describes the remedy, which is a base obtained from narcotine by oxidation. It occurs as a microcrystalline yellow powder, is soluble in water, and has an intensely bitter taste. A *résumé* of its physiological action follows.

The author then cites a number of cases in which he used cotarnine hydrochlorate with marked effect, and also those in which it was ineffective. In thirty-five cases of fibromyomata, eleven were more or less benefited, while twenty-four were not. In one case of excessive menstruation, due to an interstitial fibroid, the relief was very marked.

In nine cases, where hemorrhage was due to cancer of the uterus, the result was negative.

Complete cure followed in from two to six days in five cases of post-puerperal bleeding, after removal of retained placental particles.

In conjunction with curetting, this remedy was found effective in hyperplastic endometritis, but in the glandular form results were negative. In one case out of five of retroversio-flexio with endometritis, the menorrhagia was relieved without resort to surgical intervention. In chronic metro-endometritis, five of nine cases were more or less benefited.

In various forms of non-suppurative pelvic inflammation, only three out of twenty-three patients were not relieved by cotarnine hydrochlorate.

In irregular bleeding during pregnancy it has been found very beneficial, and no unfavorable symptoms have been noted.

In profuse menstruation in virgins, without changes being

found in pelvic organs, only five of seventeen patients were not benefited.

In atypical bleeding during the climacteric period, if no pathological cause were found, cotarnine hydrochlorate usually gave a satisfactory result.

The author remarks that while this remedy is not a panacea for all cases of uterine bleeding, he has found it better than any other remedy. In some instances it has practically served as a specific. If no effect at all is produced after three large doses have been given (from 2½ to 5 grn.), it is useless to continue with the drug. Likewise, in fibroid, it is not recommended to continue its use if two hypodermic injections of 5 grn. each, at intervals of four to twelve hours, do not cause a diminution of the hemorrhage.

An important fact is that the author has never noted any harmful results from cotarnine hydrochlorate, even when administered in such large doses as 5 grn. every three hours. In some instances it also relieved the patients of pain associated with the profuse bleeding.

In instances of too profuse menstruation, the author found the best plan was to begin with 1 grn. doses three times daily about one week before the expected flow, and as soon as the flow began to let the patient take 2½ grn. every three hours, to be continued during the entire period. In instances of metrorrhagia, from 2½ to 5 grn. may be given at intervals of from two to three hours until the bleeding is lessened; then the dose may be decreased to from 1 to 2½ grn. at intervals of three to four hours. If a quick result is important, it is best to give 3 to 5 grn. in a 10 per cent. solution subcutaneously into the buttocks, using the customary antiseptic precautions.

Because of the disagreeable taste of the medicine, it is best administered in the form of capsules, the pharmacist being ordered to put the powder dry into the capsules. It may, however, also be given in tablet form. A. J. H.

Treatment of Multiple Warts.—Arthur Hall (*British Journal of Dermatology*, July, 1904) says: It is a well-known fact, although some are highly incredulous, that the magnesium salts, through internal administration, have a direct and specific influence in some way upon multiple warts. After the report of a case thus beneficially influenced, the author believes that a possible explanation may be that, granted the disease is due to a micro-organism, it is one of poor resistance and may be destroyed by a very slight alteration of the soil, thus an increase

of magnesium salts in the tissue juices, a small quantity of arsenic, thyro-iodine, etc., may be sufficient to retard the further growth of the organism, with consequent shrinking of its new formation and disappearance of the disease. Such a view is consistent with what we observe in other parasitic diseases.

Ivy Poisoning.—Death from ivy poisoning is extremely r re, especially among adults; but a man forty-two years old died in the St. Joseph's Hospital on the 21st, after two months of intense suffering from this affliction. A striking peculiarity of the poison ivy is the varying degree of susceptibility to its effects—some persons are affected by merely passing the plant, without coming in contact at all, while others can handle it with impunity. A case is related of a child, six years old, who died from the effects of severe ivy poisoning produced by having his skin rubbed while wet by the hands of a boy who had been rooting up plants of the poison ivy. This case is rendered still more remarkable by the fact that the boy had previously washed his hands thoroughly, under supervision, first with soap and hot water, and afterward with vinegar. The boy who had been working with the plants had a full and apparently permanent immunity to the poison.—*Bulletin Health Department*, Chicago.

Experimental Decapsulation of the Kidneys.—Following the decapsulation of kidneys in rabbits, in normal dogs, in dogs with induced nephritis, in dogs with infarcted kidneys, and in dogs with normal kidneys but with additional work thrown upon them, Gifford (*Boston Medical and Surgical Journal*, July 14th, 1904) finds the following conditions: (1) In all my cases of two days and under and in my controls the entire thickness of the capsule had been removed over two-thirds of the surface by the operation of decapsulation. (2) There is a certain amount of intracapsular tension in undecapsulated kidneys, normal or with nephritis, as shown on removal of capsule. (3) There is an immediate increase in size of decapsulated kidneys persisting up to one month at least; afterwards, a decrease to approximately normal size complete at end of six months. (4) There is congestion, moderate in degree, most marked in the intertubular blood vessels in cortex, lasting three to five days after the operation. (5) No histologieal change in the renal epithelium follows the operation of decapsulation of kidneys. (6) A new capsule, very vaseular, at first, two to four times thickness of old, is well marked at end of eight days. At the end of six months it returns to approximately the normal thickness and vascularity. The new capsule arises chiefly from the connective tissue cells of the intertubular connective tissue, but in part from the retroperitoneal connective tissue which is present in the new

bed of the kidney. (7) No new vessels are formed which anastomose with those of the kidney. (8) The increase in size is due primarily to the increase in blood supply, possibly resulting from the removal of the capsule.

How the General Practitioner Should Treat Gonorrhea.—At the recent meeting of the American Medical Association, F. C. Valentine read a paper with this title. He offered the following conclusions: (1) Every general practitioner is practically competent to treat successfully uncomplicated anterior gonorrhea, if he will devote as much attention to this as he does to any other disease. (2) Every patient with gonorrhea is entitled to the services of his family physician, just as much as though he had acquired some other disease in consequence of drunkenness or other violation of morals. (3) The general practitioner who declines to treat uncomplicated anterior gonorrhea avoids one of his most sacred duties to the profession and to humanity. (4) The patient who, because he has gonorrhea, refuses the services of his family physician, is likely to become an opponent of scientific medicine, to the detriment of his health, that of his family, and that of the community. (5) The scientific treatment of this form of gonorrhea is perfectly within the power of the general practitioner. (6) The irrigation treatment is as yet the most effective method, and is most in accord with the modern scientific understanding of the disease.

Treatment of Fresh Perineal Tears.—Dr. J. Eversmann believes thoroughly in the immediate repair of perineal tears. They may heal, it is true, without any stitch; but since the firmness of the perineum depends upon a perfect union of the muscles, and it is the nature of muscles when severed to retract, unless this tendency is overcome by suture, there will not be a close and firm union, but rather a more or less wide separation of the edges of the wound. Of 132 cases of sutured fresh perineal tears, only two, or 1.5 per cent., failed to heal properly. In no case was there much pain, and in only 45 per cent. a slight rise in temperature—*American Medicine,* June 4th, 1904. [That these views are without contradiction I am thoroughly satisfied, as I have made it a routine practice to examine the integrity of the perineal triangle in every case, even without evidence of external tear. It is remarkable how often one will find a tear in the posterior vaginal wall without external evidence, and it is remarkable what an influence a deep single suture will have on the healing of these injuries. I usually use ten-day catgut for these internal tears and silkworm gut for external ones.] A. J. H.

Proceedings of Societies.

CLINICAL SOCIETY OF THE NEW YORK POLYCLINIC MEDICAL SCHOOL AND HOSPITAL.

A STATED meeting of the above society was held on March 6th, 1905, the President, Dr. D. S. Dougherty, in the chair.

Specimen of Myomatous Uterus.—This specimen was exhibited by Dr. L. J. Ladinski, who said he had removed it from a patient twenty-eight years of age, with the following history: Married; began to menstruate when thirteen years old. Had two children, both living and healthy, and had had no abortions. Menstruation of late was very profuse, lasting from ten to fourteen days, and so much blood had been lost that the patient had become very pale and anemic. About a year ago she noticed a lump in her right side, which seemed to diminish during the menstrual period and to increase between these periods. Lately the bowels have not moved freely, and cathartics have been resorted to. For the past three months the tumor increased in size very rapidly, until it reached the umbilicus. There was constipation and constant and painful urination.

Bimanual examination revealed a large tumor filling the pelvic and abdominal cavities and reaching to umbilicus; it was immovable, owing to its fixed position on the right side and in front of the pubes, and appeared to compress the bladder. The tumor involved the entire uterus, and was very soft and boggy to the touch, so much so that it could readily be mistaken for a uterus pregnant between the fifth and sixth month.

A diagnosis of soft myoma was made and operation advised.

Abdominal hysterectomy was done under ether anesthesia two days ago. The ovary and tube of the left side were not removed.

On incising the tumor, it was found to contain a large quantity of calloid material, surrounding several small fibro-myomata, showing in all probability a myxomatous degeneration.

The case is interesting because of the calloid or myxomatous degeneration of the fibroid, a condition which, though not rare, is sufficiently infrequent to warrant reporting, and especially from a diagnostic standpoint.

Soft myomata of the uterus are extremely difficult to differentiate from pregnancy, especially when there is amenorrhea, as

frequently happens in these cases. In myomata the uterus is uniformly enlarged and presents an palpation a soft, boggy feeling, simulated very closely by that of pregnancy, and when there are a number of small fibroids imbedded in the tumor, as is sometimes the case, they may be mistaken for fetal parts. Careful palpation will show, however, that in pregnancy the uterus is more uniform in contour and that there is also the characteristic feeling of elasticity and fluctuation to distinguish pregnancy from the soft, boggy, almost mushy feeling of a myoma. The speaker knew of no condition which simulated pregnancy so closely, and which was at times so difficult to distinguish from it. The specimen was to be submitted to microscopical examination to determine the exact nature of the tumor and the character of the degenerative changes.

The patient has run a perfectly normal course up to date, and there is every reason to believe that she will have an uninterrupted convalescence.

Dr. F. M. Jeffries said that the colloid degeneration never took place in any tissue other than epithelial, and as the specimen under discussion was a fibroma, he thought the colloid degeneration could be excluded. He also could not recall having heard of a single instance of myxomatous degeneration in a fibroma. From the microscopical picture presented, he was inclined to think that the change was probably edematous. There are two types of fluctuating fibroma, one in which there is merely a necrosis or breaking-down of the cellular structure, and the other simple edema, where the interstices are filled with fluid, which may even be partly viscous in character. Of course, to make a positive diagnosis, a microscopical examination would be necessary, but the speaker's diagnosis, from the gross, was an edematous, rather than a colloid or a myxomatous degeneration.

A Case for Diagnosis.—Dr. D. A. Sinclair presented a case for diagnosis of pyoarthritis of a chronic nature. Mr. H., twenty-three years of age, railroad employee by occupation. Mother and father living. Ten or eleven brothers and sisters died in infancy—cause unknown. Family history negative to tuberculosis. Six years ago had an attack of gonorrhea, for which he was treated, and he says was apparently cured. About a year later there was a recurrence of the discharge, lasting about three weeks, there being no apparent cause for this attack. Attacks have been frequent since that time, without the patient having exposed himself to them, all showing an uncured condition since 1899. Fifteen months ago he developed a swelling of the left elbow. He then noticed a pain in the right knee, and then in the left hip; three months later this left elbow opened spontaneously and pus escaped. He stated that during all the

time the left elbow was swelling he felt absolutely no pain. At about this time the left index finger, second joint, and the middle finger, at the third or distal joint, swelled, and later the same condition of swelling obtained in the joints of the great and second toes, all rupturing and discharging pus.

The patient entered the hospital January 5th, with an acute epididymitis on the left side. This inflammation was accompanied by pain. Hot flaxseed poultices were applied every hour until fluctuation was felt. The abscess was opened under ether and a foul, cheeselike substance was taken away, which had destroyed the epididymis completely.

When he entered the hospital, the patient had a large abscess on the right side, extending from just below the margin of the nipple downward six or seven inches, and about three and a half inches wide, burrowing posteriorly to the ribs. This was punctured with a hypodermic needle, and the material evacuated was examined by Prof. Jeffries, together with the discharge from the urethra and prostate gland, but no evidences of the gonococcus or tubercle bacillus were found. About ten days ago another fluctuating tumor began to develop on the right hand, about one-half an inch posterior to the first joint of the little finger. The patient has suffered no pain from any of these lesions. The treatment has been oil of gaultheria locally applied and given internally, without benefit; iodide of potash has also been given internally, without, however, reducing any of the swellings. The joint lesions are still swollen and discharge a greenish material; the abscess on the chest wall has not yet closed, and the chronic urethritis is still present.

Dr. F. C. Keller said that from the history and general appearance of the patient, he was inclined to think the lesions of tubercular origin. He had seen several cases of tubercular arthritis, and this case had many features in common with them.

Dr. V. C. Pedersen said he had seen two or three cases of gonorrheal arthritis, but the patients all suffered severe pain, and there was no destruction of bone, but some destruction of the joint tissue. He had read of one case of gonorrheal infection where the patient died, and pure gonococci were recovered from the fluid in the pericardium and in the pleura after death. The patient under discussion presented some general appearance of gonorrheal arthritis, but the slow onset of the joint symptoms, their comparative mildness, their wide distribution and the tuberculous temperature and sinus formation, and the difficulty in obtaining any pathological findings from the fluid in the joints all seemed, in the speaker's opinion, to point to tuberculosis.

Dr. A. Lyle said he thought the condition tuberculous. The destructive process in the joints, together with the lack of gono-

cocci in the discharge, seemed to prove rather conclusively that it was of a tuberculous nature.

Dr. Jeffries said he had examined the fluid on two occasions, and, finally, the fluid from the cavity of the chest, and had been unable to find gonococci of any sort, by examination or culture. He could only assume that the condition was tubercular, because, in the absence of any demonstrable form of germ in pus we can only come to this conclusion, although the pus does not necessarily contain tubercle bacilli. If the walls of the abscess were scraped, some tubercle bacilli might be obtained, or the histological structures of tuberculosis may be demonstrated. The bacilli, by the time they have become part of the pus, have so far undergone disintegral changes that they fail to accept the dyes, and thus there is pus without any demonstrable bacilli.

Dr. M. Franklin said he had examined the patient with the fluoroscope, and the appearance of the bones was unquestionably tubercular. The fluoroscope, however, unaided by the X-ray photograph, was far from reliable.

Dr. James Pedersen said that possibly the patient had had a more or less pure gonococcal arthritis of the elbow-joint; but that in his opinion the sinus formation about the finger-joints and in the testicle was significant of a tuberculous process there. He had never seen a gonococcal infection of joints behave just as these finger-joints were behaving, and the history of the case, together with the clinical picture, and the pathologic findings, together with the fluoroscope picture, as already stated, seemed to him conclusive.

Dr. M. Packard said the joints of the patient's fingers reminded him of the picture of spinoventosa, which occurs in specific and tubercular patients. A positive diagnosis might be made by injecting some of the fluid from the patient's abscess into a guinea-pig.

Dr. L. L. Roos said that the apex of the right lung showed some fine rales and a slight dulness, which was indicative of tuberculosis.

Patient Suffering from Facial Paralysis.—Dr. G. B. McAuliffe presented a patient who, during the course of an acute otitis media, developed facial paralysis. When this occurs as the result of the otitis, it is due to the pressure of an exudate on the nerve exposed by reason of a bony dehiscence, or due to a neuritis established by inflammatory extension through the small foramina in the facial canal. The case was referred to Dr. Franklin with electrical treatment.

Fibroma of Inside Cheek.—He also showed a patient with a small fibroma inside of the cheek, which had existed for twenty years, and which got so continually between the teeth that the

woman had developed the habit of speaking with the jaws almost set. The wonder is that she endured it so long.

Epithelioma of the Lower Lip.—Dr. J. A. Bodine showed a case of epithelioma of the lower lip on which he had operated. The patient had been treated for three months under the X-rays, with a resultant increase in size of the growth. He first appeared at the clinic with a foul, fungous mass, which involved the lower lip from the angle to within a third of an inch of the other angle, and extended downward over the chin. The raw surface was closed by plastic flaps.

The speaker said he never put a dressing on a face wound. He had removed upper and lower jaws, and lower lips and closed hare lips, and had never applied any gauze dressing, and yet never had any suppuration. The reason for not applying a dressing is that if it be under the eye, the dressing becomes saturated with tears; and if below the nostrils, the nasal secretion will infect the wound, or below the mouth the saliva will be retained and decomposed in the gauze, thus infecting a wound that would otherwise heal. In the operation under discussion, every single gland and every bit of loose alveolar tissue was dissected down to the clavicle and both submaxillary glands were removed, care being taken not to sever the facial artery, as the life of the flaps depends upon the integrity of this artery.

Dr. Franklin said that he had never known of an epithelioma of the lower lip being cured by exposure to X-rays, and did not believe that it could be done. He thought that now, however, was the time to subject this patient to X-ray treatment, and thought that about fifteen radiations would materially lessen the chances of recurrence.

Dr. D. S. Dougherty said that he would like to send his mastoid patients around with a very light dressing, and was much impressed with Dr. Bodine's idea of getting patients with face wounds out of bed in a short time. He always got his mastoid patients up, if possible, on the second day, and even allowed them to leave the hospital two or three days after operation.

Pott's Disease of the Dorsal Spine.—Dr. V. C. Pedersen presented this patient, three months after operation, in order to illustrate the importance of stripping a patient for physical examination. The abscess in the case had pointed at the tip of the left twelfth rib, where a small incision had been made before the case came into Dr. Pedersen's hands. No examination of the back had been made, so that the kyphosis present in the mid dorsal region escaped attention. At first the cavity drained freely, but under the persistent use of ten per cent. iodoform in glycerine emulsion, all discharge had ceased. With the aid

of orthopedic corsets, prescribed by Dr. Homer Gibney, further progress of the disease appeared to have been arrested. The usual systemic treatment for tuberculosis was also being followed. Dr. Pedersen stated that he hoped to have the boy leave the city, and take up farming as his life's work.

Periurethral Abscess.—Dr. Pedersen also presented two cases of periurethral abscess. The first patient developed complications before any treatment of the disease was had, in the midpenile region. The speaker adopted the plan of treatment which he thinks is best in these cases—not only opening the abscess throughout its entire length in the long axis of the penis, but also of slitting the skin somewhat in addition, thus producing a large cone-shaped cavity, with its apex at the urethra, and its base in the skin sheath of the penis, thus facilitating packing from the bottom. In this case the entire cavity was closed in three weeks. At no time previous to or subsequent to the operation was there a communication between the abscess and the urethra. The expectant method of treating the gonorrhea had resulted in a perfectly healed urethra in the course of twelve weeks' treatment, which included the surgical care of the abscess.

The second case was one of periurethral abscess in the glans penis, which appeared during the course of a gonorrhea, but without material symptoms. When first seen by Dr. Pedersen, the gonorrhea was well, with the exception of a few shreds in the first urine passed. The abscess was about the size of a pea, and entirely without subjective symptoms. Pressure did not show any connection with the cavity of the urethra. A hypodermatic needle was passed into the abscess and withdrew a few drops of mucopus, which, unfortunately, were lost in the dispensary before examination for gonococci could be made. Since that time the hypodermatic needle hole in the wall of the abscess has remained open, but no material discharge which the patient noticed was coming away, and no urine escaped. As to treatment, the speaker thought that the proper method was to open the region about the abscess as far as the floor of the urethra, and tie off the neck of the abscess at this point, and then dissect out the wall, allowing the wound to heal by granulation. He thought this method would result in complete and steady cure. The case was presented as showing how an abscess in the fossa navicularis could develop with few symptoms, subjective or objective.

Dr. James Pedersen opened the discussion of these cases. He had never seen an exact duplicate of the second case presented, that of abscess in the glans near the frenum. Abscesses in that locality were much more frequent on one side or the other of the frenum. If the abscess in question were opened too freely,

he thought there was risk of a sinus through which urine would leak, and which would be difficult to close because of the scant amount of tissue with which to do a plastic operation. The glans penis does not lend itself well to plastic work. He thought the abscess might be punctured with a very slender bistoury, from within the meatus.

The second case, that of the periurethral abscess near the peno-scrotal angle, he thought had been very skilfully treated. A manœuvre he had seen practised in these cases consisted in making the usual free incision in the skin, over the prominence of the tumor, but in incising the abscess cavity either above or below the centre, so that, in case the floor of the urethra sloughed at the site of the abscess, the resulting sinus would have an oblique direction, and could, therefore, be the more easily closed, with or without a plastic operation.

Dr. D. A. Sinclair said that in cases of periurethral abscess, he always tried to have the discharge through the urethra, rather than external, even though the skin was slightly yellowish, showing that the abscess wall was about to burst, because by incision into the urethra danger of fistula is removed. The incision is made by passing an endoscopic tube into the urethra, making a free incision into the abscess, and then using a twenty-five per cent. solution of peroxide of hydrogen once a day, through the urethral opening. When the abscess bursts externally, and a fistulous tract results, the sinus is closed by dissecting around it, from the skin surface to the urethra, and tying a ligature around it, just below the mucous membrane, with the result of nearly always closing it.

Dr. Lyle said he did not think anything was being accomplished by the iodoform drain. He had been using recently a solution of iodine, and irrigating with it from below the sinus, and in one case, particularly, had obtained very good results after five irrigations of five per cent. iodine. A tuberculous abscess was opened at the clinic, and three pints of pus removed, and it was curetted and washed out with iodine once a week for five weeks, with excellent results.

Dr. Bodine said that he would have known Dr. Pedersen was a general surgeon by the scar of the periurethral abscess case. He advocated draining these abscesses externally, rather than into the urethra, as the latter process does not follow the rule of general surgery of dependent drainage.

Dr. V. C. Pedersen said, in answer to a query from Dr. J. Pedersen, that the little pocket of pus is situated well in front of the frenum in the glans penis proper. This came during an attack of gonorrhœa, but without symptoms of pain, and he thought it some congenital condition, which had developed later. He

thought a rather free opening and tying off the same at the floor of the urethra the correct one, and also agreed with Dr. Bodine that an abscess containing pus, whether prostatic or urethral, should be dealt with on surgical principles. An ischiorectal abscess is not drained from the canal of the rectum, but from a skin opening liberal enough to guarantee drainage from the very bottom. After opening the abscess to its utmost limitations, extra cuts should be put in the skin, so that the skin will not heal first. He had tried the iodine irrigations on other patients, with very good results. Lugol's solution of iodine, he thought, was better than the simple solution, as the former prevented the precipitation of the iodine and enabled it to work its way through the sinuses.

Dr. Frederick E. Beal read the paper of the evening, which was entitled, "The Recognition and Differentiation of Rales." He said, in part:

"In my opinion, the rales heard in the lung should be divided into but two main divisions, dry and moist; and that it is as easily possible to differentiate between a dry and a moist rale as it is to tell the difference between the sound of a piano and that of a violin. It is true that a dry rale may vary in its size from that produced by the largest bronchus to one having its origin in the tiniest bronchial; while the size of the moist rale may be that of the finest air-vesicle to that of the largest cavity: and the number of rales, each of different size, that could possibly exist between these extremes is almost without limit. Why, then, should we confuse ourselves by picking out two or three of each kind, and giving these the dignity of a name. It is enough to know, and it is of the greatest importance, from a diagnostic and prognostic standpoint, that a rale is moist or dry; and this can with certainty be known, while its size, though important, can be told with a moderate degree of accuracy, by its pitch.

"The greatest point of differentiation is that a dry rale has always some duration to it, while a moist rale is always instantaneous. A dry rale is caused by air going at a given rate of speed through a smaller-sized tube than it normally should do, thereby raising the pitch of the sound this passage of air produces. The commoner causes of dry rales are mucus stuck so tenaciously on the side of the bronchus that breathing does not move it; this will lessen the calibre of that bronchus. Any pressure from without, or any foreign body or growth within, that would encroach upon the size of the air-passage, and, finally, any nervous phenomenon that would spasmodically cause the bronchi to lessen their calibre, would all give rise to the same condition.

"The moist rale is caused either by the pulling apart of moist

adhered surfaces, or by air passing through an accumulation of fluid that is sufficiently liquid to allow it to bubble through. This size may be caused by the breaking apart of the stuck-together surfaces of the finest air-vesicle, or that of pulling apart of the walls of a collapsible cavity, or the air may break through a collection of thin mucus filling a bronchus; or, again, a cavity may be more or less filled with fluid, and entered below the surface of that fluid by a bronchus. The air entering through the bronchus will bubble up through the liquid, but the sound produced will always be instantaneous.

"The moist rales are of far graver significance than the dry. The dry rales are the whistlings heard, perhaps, in their greatest profusion and purity in bronchitis, emphyza and asthma, while the moist rales are most typical in pneumonia and tubercular pulmonalis."

Dr. V. C. Pedersen asked where the reader placed the friction rale of pleurisy.

Dr. Beal said that the dry rale, or the rale with duration, always sounds a little at a distance when listening to it, and the moist rale always sounds closer to the ear. The difference between these and the friction rale of pleurisy is that, while the friction rale has duration, it always sounds close to the ear. It is sometimes confounded with the dry rale.

WILLS' HOSPITAL OPHTHALMIC SOCIETY.

STATED meeting of the Wills' Hospital Ophthalmic Society was held at the hospital on the 23rd of January, 1905, Dr. Charles A. Oliver in the chair.

Dr. James A. Kearney showed a most interesting case of hypopyon keratitis from traumatism in the left eye of a middle-aged man, a house patient of Dr. Conrad Berens. The conditions and various methods of treatment were fully and informally discussed, Drs. George C. Harlan and Oliver expressing their preference in favor of Sæmisch operation, while Dr. S. Lewis Ziegler tending towards the employment of paracentesis. The various methods of cauterization of the infected corneal area were alluded to, Dr. Ziegler stating that he had most frequently secured good results in desperate cases with careful touching of the part with a one per cent. solution of formalin, and in selected cases by careful application of equal parts of camphor, chloral and carbolic acid.

In the absence of Dr. W. W. McClure, the Senior House Surgeon exhibited a case of corneal staphyloma which had been

operated upon by excision of the staphylomatous portion of the cornea and bringing the two lips of the wound together by two interrupted sutures. The corneal scar was fully healed and the anterior face of the membrane was properly curved. In the discussion Drs. Oliver, Ziegler and Harlan compared the relative values of the different methods of procedure and cited instances that had occurred in their public and private practices.

Dr. Kearney showed for Dr. P. N. K. Schwenk several most excellent results from the operation of abscission of the cornea. The indications for the procedure, the modification of technique, and the comparative results of the operation were fully discussed by Drs. Dewey, Harlan and Kearney. The methods that had been in vogue in the hospital and those which were employed at the present time, were given in the fullest detail, eliciting much regarding why some of the plans had been supplanted by others and giving reasons for the substitution of other procedures.

ASSOCIATION OF CLINICAL ASSISTANTS OF WILLS' HOSPITAL, PHILADELPHIA.

The first regular meeting of the Association of Clinical Assistants of Wills' Hospital was held at the hospital on the 18th of January, 1905, at 8.30 p.m., Dr. J. Hiland Dewey in the chair.

Dr. Stanley S. Smith read a report of a most interesting case of gumma of the iris and ciliary body occurring in the clinic of Dr. Charles A. Oliver. The case presented all of the characteristic symptoms of the condition, and was fast becoming well. Dr. Smith stated that it was very instructive to note the secondary rapid diminution of vision produced by haze in the media, which had been probably caused by a deposition of the gummy infiltrates into the chambers of the eye. In the discussion, Dr. John T. Krall commented upon the comparative painlessness of specific cyclitis and the character of the infiltration into the aqueous and vitreous, which was chiefly composed of round cell exudates. In support of the belief of others that gummata of the ciliary body usually occur on the upper border of the cornea, he had seen but one in which the swelling was situated to the lower side.

The various methods of administering mercury were informally discussed, the consensus of opinion being in favor of the use of mercurial ointment by inunctions.

Dr. Josephine W. Hildrup read a paper upon ten cases of interstitial keratitis, nine of which had been studied in the clinic of Dr. Oliver, and the remaining one in her own clinic at the

Woman's Hospital. The ages of the cases varied from six years to fifty-eight years. The dyscrasia had been very carefully studied in all. Females had been preponderant in the series. With but one or two exceptions, all of the cases had passed on to resolution.

The discussion, which was quite informal, embraced the forms of treatment which were the most prevalent among the surgeons in the institution. Dr. James A. Kearney stated that he had seen much good from the use of inunctions of protiodide of mercury. Dr. Dewey spoke favorably of the use of dionin, claiming that it had hastened resolution in a number of cases which he had seen. He had not had much experience with subconjunctival injections and had seen some unfortunate results, such as conjunctival ulceration, giving rise to disfigurement from their use. Dr. Kearney exhibited a case in which the right eye was being treated by the ordinary routine methods, supplementing these by subconjunctival injections of common salt solution in the left eye; the latter organ (although the first involved) seeming to grow well much more rapidly than its fellow. Dr. Krall stated that he had learned to share the opinion of others that if injections were made under the conjunctiva, their effects would be to produce a number of adhesions between the bulbar conjunctiva and Tenon's capsule; and stated that even though the injections were made into the capsule, their good results were but transitory, as adhesions were sure to occur. In other words, he, with many authorities, believed that such injections did more harm than good.

Dr. Kearney presented a case of double ptergium from Dr. William Zentmayer's clinic, in which one eye had been operated on by the von Arlt method and the other by the McReynold's. He exhibited a case of entropion of the upper lid, taken from the same clinic, in which a Hotz operation had been performed with little or no improvement, followed by a Jaesche-Arlt operation, which afforded a very satisfactory result. He also showed a case of entropion from the clinic of Dr. Frank Fisher, in which the cilia had been transplanted and the tarsus removed, giving most excellent results. In the discussion, Dr. Krall was of the opinion that the McReynold's operation had no advantage over the von Arlt. He believed that every case should be treated on its own merits, one method of operation not being applicable to all. Drs. Dewey, Milton A. Robison, and Smith cited several cases in which different plans of treatment had been most successfully applied.

Selections, Abstracts, Etc.

OBSERVATIONS ON THE USE OF STOVAINE IN SPINAL ANESTHESIA.

Prof. Dr. Chaput, surgeon of the Boucicault Hospital, Paris, in a paper read before the Société de Chirurgie of Paris, refers to the use of Stovaine, the new synthetic local anesthetic, in a series of operations numbering over one hundred and fifty. Dr. Chaput used a method based upon the teachings of Guinard, Ravang and Auburg and employed a 10 per cent. solution, making the injection with a Pravaz syringe. The doses varied from .3 to 1¼ grains, an analysis of the last one hundred operations being as follows: Region of the lower limbs, 45; region of the perineum, 26; region of the abdomen, 29, and the opinion is advanced that there is not an operation of the region of the perineum and lower limbs, but which can be performed with this local anesthetic. With its aid an outward dislocation of the foot and one of the hip was very easily reduced. Complicated fractures can be operated upon with Stovaine without fear of seeing the reduction compromised by muscular tonicity.

Insensibility was reached in 90 per cent. of the cases in less than ten minutes, while in 75 per cent. of the cases it reached the umbilicus in less than ten minutes.

During the anesthesia the pulse gradually increases, while during the operation it decreases. Nausea and vomiting are very rare, the general condition is good, the patient can take nourishment immediately. Headache and backache are rare and when present are slight and of short duration Increase of temperature is not great. Finally, Stovaine does not cause retention of urine in the operations on the anal region. From this comparison it can be seen that Stovaine presents considerable advantages over cocaine and deserves to be substituted for it everywhere and always.

Technique of the Operation.—"The solution used was contained in 1 c.c. tubes sterilized at 115° Centigrade. The needle used is the Tanon modification of the Tuffier form, being closed at the point, and with a .3 mill. hole on the side, so placed as to prevent it becoming clogged with adipose tissues. One-half the syringe is filled; it is then held vertically, the regulator adjusted on the piston-rod, corresponding to the number of drops which I wish to inject, generally about eight, this number being necessary for a radical cure of inguinal hernia and about double that quantity for a sub-umbilical laparotomy. The piston is then pushed forward so as to expel the excess of the liquid; the needle is taken off the

syringe which is held vertically by an assistant. The patient is then placed in proper position, and the needle is directed obliquely forward, upwards and inwards; when it has been driven a few centimetres, the operator has the sensation of puncturing a parchment-like tissue, and if the needle is driven a few millimetres further the cephalo-rachidian liquid is soon seen issuing. The syringe is then fitted to the needle; the liquid is drawn into the syringe to dilute the solution contained in it; the lateral hole of the needle is turned upwards and the contents of the syringe are injected without jerking, after which it is immediately withdrawn and the patient made to lie down.

"Cleansing of the region to be operated upon is then done, and after a few minutes the operation may be commenced."

In conclusion, Dr. Chaput states that the local analgesic action of Stovaine in solution is identical to that of cocaine while it is less toxic than the latter. Syncope is not present and patients can be operated upon while seated, being able to arise immediately thereafter. All laparotomical operations may be performed, even the most difficult.

ABSTRACTS.

Typhoid vs. Tuberculosis.—J. A. Wyeth, New York (*Journal A. M. A.*, May 6), gives notes of two cases of tuberculosis in which the disease appears to have been arrested or cured by the occurrence of typhoid fever. In both cases there was a marked increase of body weight, together with the disappearance of the symptoms of the tuberculous disease. Both have remained well for about four years since the typhoid attack. Dr. Wyeth is indebted for the notes of these cases to Dr. Francis W. Gallagher, of El Paso, Texas, to whom he refers inquirers for further information. He asks, however, whether there might not have been in these cases an antagonism between the typhoid and the other pathogenic germs, and hence a suggestion of another possibility of immunity from the dreaded scourge of tuberculosis.

Human and Bovine Tuberculosis.—S. von Ruck, Asheville, N. C. (*Journal A. M. A.*, April 29), reviews the literature on the intertransmissibility of human and bovine tuberculosis, and from analysis of the evidence considers Koch's statement that cattle are insusceptible to human tuberculosis as still unrefuted. The experiments, moreover, have not shown that the danger to man from the tuberculosis of cattle is a paramount one compared with that of human tuberculosis. He criticises Behring's opinion regarding this and reviews the evidence from other sources. His final conclusion is that with all the circumstantial evidence available, the question of the susceptibility of mankind to bovine tuberculosis can not be considered as satisfactorily settled. Only experiments on human

beings can clear up this point, and these are impossible. The inoculation of cancerous cases with tuberculosis in one hospital as a therapeutic measure, based on the theory of the antagonism of the two infections, did not produce the disease in a single case. So long, however, as we can not show beyond all doubt that the disease is not thus transmissible, measures against bovine tuberculosis must remain imperative. Although, as Koch shows, thorough cooking and boiling will destroy all danger from tuberculous meat and milk, the use of these products of diseased animals is still objectionable.

Smokeless Powders.—C. F. Kieffer, Fort D. A. Russel, Wyoming (*Journal A. M. A.*, April 29), reports an investigation on the pathologic effects of the fumes of the high explosive now so generally in use. A number of different powders were tested regarding the gases given out and the effects on the human system. The latter series was carried out in a room. Dr. Kieffer experimented on himself and on several members of the hospital corps by exploding a carefully measured quantity of the powder in a sealed room containing about twelve hundred feet of air space and observing the effects. The chief symptom was the well-known "dynamite headache," and the fumes seemed to have marked effects on the circulation and heart, with secondary effects on the nervous system. In some cases there was incoördination and diminution of hearing and of vision. Low temperature seemed to aggravate the conditions, and at least one person was found who appeared to be immune. In most cases a certain amount of tolerance is gradually established. Kieffer also mentions a patient seen in Da Costa's clinic who could take six hundred and fifty drops of *spiritus glonoini* without serious effects. According to his findings the gases to which the effects are attributable are carbonic oxid and nitrogen peroxid, especially the latter, though the symptoms are due to the combination of both. To meet the nitrate poisoning endeavor should be made to restore the vasomotor tonus, and strychnia is indicated in full doses. The carbonic oxid will be eliminated rapidly in moderate cases, but in severe intoxications oxygen inhalations and artificial respiration may be required. For the headache, coal-tar anodynes are not only useless, but dangerous. The best remedies are strong coffee and a linseed poultice to the nape, as advised by Key. The danger from these fumes is a real one, as numerous fatal cases testify.

Sterile Water Anesthesia.—F. W. Stevens, Bridgeport, Conn. (*Journal A. M. A.*, April 29), has employed Dr. Samuel G. Gant's technic with sterile water for the production of local anesthesia in a number of operations for hemorrhoids, in other minor surgical procedures and in one exploratory laparotomy, with the best results. In the latter case, as haste was required, the operation was finished under ether. By this method he anesthetizes the skin over the

line of incision by repeated small injections, followed by deeper ones for the underlying tissue. The advantages he claims for the method are rapidity or effective local anesthesia: absence of need of elaborate preparations; absence of toxic effects—nausea, vomiting or straining; no fear from lung, kidney or heart complications; no after pain; and its value in emergencies in which other methods are not available. Operations for hemorrhoids can be performed in the office or at the patient's home, and need not cause loss of time or interruption of business. He recommends that the method be given a thorough trial, and thinks that when it has become more familiar its advantages will be apparent and its employment general.

Apparatus for Applying Hot Air to the Ear.—Albert C. Heath, St. Paul, Minn. (*Journal A. M. A.*, April 29), describes an electrical apparatus that can be used with any cautery battery for applying heat to the ear. He claims for it the advantage of proper graduation of the temperature by means of the rheostat: the possibility of definite application by means of the otoscope simultaneously employed: lack of danger of burning; simplicity of construction and management, etc. The air is heated by the cautery apparatus and forced through a rubber tube into the ear. By this means he claims the application of heat to the ear is made a definite therapeutic procedure, the amount being controlled and the application directly observed.

Immunity.—In this the fourteenth chapter of the special article on Immunity (*The Journal A. M. A.*, April 29), discusses the simplicity of hemolytic experiments and the rapidity with which they may be performed and terminated. The corpuscles for such experiments are obtained by the defibrination of freshly drawn blood and the removal of the fibrin. Usually they are made in a 5 per cent. suspension by dilution with isotonic salt solution. The 5 per cent. emulsion of the undiluted blood is centrifugated, the overlying fluid drawn off by means of a pipette and substituted by fresh salt solution. The corpuscles are then thoroughly mixed with the new solution and the process of centrifugation repeated. The experiments of Bordet showing the analogy between bactericidal and hemolytic serums are considered, and the studies of Metchnikoff, Ehrlich and Morgenroth are also referred to. The absorption of amboceptors by cells is fully discussed and the experiments are described in detail. It is stated that when micro-organisms gain entrance to the body they are killed and dissolved into considerable masses, and, that as a result of this certain bacterial constituents reach the circulation, and among them are molecules or receptors which possess haptophores capable of uniting with a particular type of amboceptor, the latter being an integral part of some tissue cells. This union having taken place, an affinity for circulating complement may be created as in the test-tube experiments. This chapter concludes by stating that inasmuch as the

heat-resistant body alone is increased during immunization or infection, the greater part of the specificity would seem to depend on the nature of the amboceptor rather than that of complement. No theory except that of Ehrlich offers at present a tangible explanation of this feature.

Autopsy Findings in Epilepsy.—B. Onuf, Sonyea, N.Y. (*Journal A. M. A.*, April 29), reports the results of careful autopsies on sixteen epileptics at the New York State Institution for Epileptics. In twelve cases there were valvular changes of the heart, most frequently of the mitral valve (80 per cent.), less so of the aortic and still less frequently of the tricuspid valves. These he considers generally as secondary results of the special strain due to the major epileptic attacks. Capillary changes, tortuosity and aneurismal dilatations, were observed in several cases, and were attributed to the same causes. In eight of the cases where the lungs were examined, there was acute pneumonia as a contributory cause of death. The cerebral changes were very striking. In ten cases there was a marked thickening of the pia chiefly over the frontoparietal lobe. In other cases there were vascular lesions, circumscribed atrophy of one frontal lobe, subdural hemorrhage (one case), internal hydrocephalus (one case), cerebellar cyst (one case), and shrinkage of convolutions of vermis and adjoining cortex (three cases). The most striking changes, however, were noted in the thalamic region. These were in the nature of atrophy, sometimes the pulvinar, sometimes the other portions being most markedly affected. There was also an apparent discrepancy in the proportions of the geniculate bodies. Onuf discusses the possible relations of these thalamic changes to the epilepsy, but does not venture to express an opinion as to whether they are directly connected with the seizures or are only part of a general pathologic condition of the brain. He suggests that there was probably an optic atrophy in some of these cases, and hence the importance of fundal examination in epileptics. The importance of good clinical histories in these cases is also emphasized.

Cerebrospinal Fever.—J. C. Wilson, Philadelphia (*Journal A. M. A.*, April 29), reviews the history, causes, symptoms, treatment, etc., of epidemic cerebrospinal meningitis, a disease which has at present a special interest on account of the lately occurring epidemic in New England and in New York. While it has been recognized for about a century, most of our knowledge of the disorder has been acquired of late years, and largely through the work of our countrymen, Councilman, Mallory and Wright. Councilman's recent paper (*Journal A. M. A.*, April 1, 1905) is referred to by Wilson. Formerly the communicability of cerebrospinal meningitis was doubted, but it is now admitted that if the nose, ears, or lungs are affected, it may readily be conveyed from one person to another. Second attacks are very rare: it is prob-

able that one attack confers a persistent immunity. The germs are found only in connection with the lesions of the disease, but mixed infections are not uncommon. The symptoms are most diverse, there are no prodomes, and the period of incubation is unknown. In the malignant cases, the symptoms of inflammatory lesions of the brain and cord, and those of a general malignant infection are both overwhelming. The author goes at some length into the description of the general symptoms and those of the anomalous types, the fulminant form, the abortive, the intermittent and the chronic types. Few diseases vary more in their severity and mortality, or are followed by more complications. The diagnosis may be difficult, but if meningitis be present, it is not usually embarrassing during an epidemic. In doubtful cases, lumbar puncture should be resorted to, and the presence of the meningococcus in the cerebrospinal fluid ascertained. The differential diagnosis between this form and tuberculosis meningitis may, in some cases, be far from easy without this. The mortality of different epidemics varies between 20 and 75 per cent., the average is estimated by Wilson as near 40 per cent. In the mildest cases no treatment is required; in the malignant ones, none is effective. Quiet, nutritious diet, cold applications to the head and spine, laxative doses of calomel in the beginning of the attack and opium are recommended, the last named drug being regarded as indispensable. For prophylaxis, cleanliness and avoidance of overcrowding in times of epidemics, isolation and sterilization measures, and in cases of successive attacks in the same family, abandonment of the dwelling and thorough disinfection are advised.

Syphiloma of the Kidney.—R. R. Campbell, Chicago (*Journal A. M. A.*, April 29), points out that gumma of the kidney is to be considered as a possibility when dealing with "surgical kidneys." In case the gummata are of large size, palpation may reveal a tumor, which must be differentiated from a malignant growth. In individuals who have had syphilis, ill treated or untreated, syphiloma of the kidneys must always be thought of in differentiating obscure kidney disease. One kidney only is usually involved, a fact which must not be forgotten, and we should eliminate in the diagnosis, all symptoms that may be caused by co-existing nephritis. The gumma involved portion of the kidney is inactive: therefore, typical urine findings are wanting. If, however, there are single or periodic discharges indicating the rupture or breaking down of a gumma or a tumor presumably syphilitic is found, nephrectomy should not be performed until the possibility of syphilis has been excluded.

Reaction of Colon Bacillus Toxin.—The action of the intracellular poison of the colin bacillus, the extraction and characteristics of which were described by Dr. Wheeler, has been studied by V.

C. Vaughan, jr, of Ann Arbor, Mich. (*Journal A. M. A.*, April 29). His conclusions are in substance as follows: 1. The colon bacillus produces a powerful poison when grown on artificial media. 2. It is intracellular in character and contained in both the living and the dead bacterial cells. 3. It can be separated from the other constituents of the cell only by chemically breaking up the latter. 4. The peritonitis occurring after intraperitoneal inoculation with the colon bacillus is due to the presence of the poison in a combined and not in a free state. 5. This intracellular poison causes a marked fall in body temperature. 6. The poison of the colon bacillus apparently causes death by paralysis of respiration. 7. The intracellular poison is an essential group of the bacillus, and can be built up synthetically on proteid free media. 8. It is the poison causing death in animals inoculated with cultures of the living colon bacillus.

Gout.—E. Schmoll, San Francisco (*Journal A. M. A.*, April 29), offers the following as his conception of gout: In gout the uric acid is produced not only by oxidation of purin bases, but by synthesis; this synthesized uric acid therefore, has not at its disposal the thymic acid necessary for its solution in the blood. This is why we can detect uric acid in the serum. If the formation of the synthetic uric acid increases for any reason, the serum becomes saturated, and as no thymic acid prevents its precipitation it is deposited as tophi in the joints. He explains some difficulties of this theory and gives the results of his experiments with the thymic acid treatment. The excretion of uric acid is constantly increased during the medication and gouty attacks cease to appear, the swelling goes down, and, in some cases, entirely disappears. The dose is about one-quarter of a grain, three or four times a day, and is given after meals to avoid gastric disturbance. Larger doses, three or four grains in twenty-four hours, may cause local inflammatory reaction. He does not claim to cure gout in this way, but simply to neutralize the primary metabolic disturbance revealing itself by the synthetic formation of uric acid.

Protection from Roentgen-Ray Injuries.—C. L. Leonard, Philadelphia (*Journal A. M. A.*, May 6), calls attention to the serious risk that X-ray operators undergo, especially if they follow the practice advised of testing the qualities of the rays on their hands with the fluorescent screen. The only practical method is to limit their radiated field by covering the Crookes tube. For this purpose he uses a pasteboard box a little wider than the diameter of the tube and covered with X-ray lead foil a little heavier than the ordinary tea lead. This extends two inches below the bottom of the box, and can be adjusted so as to limit the field to any extent required. It is not necessary to cover the anode end, and the box is held on a bracket over the portion of the body to be treated; if a very small field is required, a local shield may also be employed. He thinks possibly some effects are due to the strong induction field surrounding the coil which, especially in large hospitals, should

be kept in another room, but with the controlling apparatus within the operator's reach. For the dermatitis of the operator's hands, he advises twice daily soaking in very warm water and scrubbing with Eichhoff's superfatted resorcin soap, followed by inunction of lanolin containing half an ounce of boric acid and a dram of resorcin to the ounce. For the acute erythema of X-ray treatment, he employs a stearate of zinc powder with 10 per cent. ichthyol, which he thinks acts as a prophylactic against severe burns. This should not be confused with stearate of zinc ointment, which may do harm.

The Cause of Cerebrospinal Meningitis.—S. J. Maher describes cultural and animal experiments undertaken with pus from the spinal canal of an adult sick with cerebrospinal meningitis. The results lead the author to say that his findings seem to show that the diplococcus of Weichselbaum is only one phase in the life cycle of an organism, which at times is larger and rod shaped, at others small and of the shape of the pneumonia diplococcus, and probably at others of yeast shape.—*Medical Record*, May 6th, 1905.

System and Expedition in Office Practice. Office Plans and Details.—R. L. Dickinson discusses numerous methods by means of which it is possible for the physician to economize time in office work and so increase his capacity for work. Expedition may be effected in several ways, such as by well-planned quarters, by completeness of outfit, by appointments and by selection among waiting patients, in history taking, and by proper assistance. All of these topics are discussed at length, especial attention being devoted to a consideration of the manner in which the available space of an ordinary city house may best be utilized for office purposes. A large number of plans are reproduced, showing what may be done under different conditions, and many practical hints in regard to methods of securing sound proof doors and partitions, economizing space, arranging sterilizers, etc., are given. The most convenient methods of illumination and numerous details facilitating office treatment are also described, for all of which reference must be made to the original.—*Medical Record*, May 6th, 1905.

The Present Status of Rontgen Ray Therapy.—R. H. Boggs says that much experience is necessary in applying the X-rays in order to get the therapeutic effect, as the various mechanical guides to the dosage are not always reliable The use of the fluoroscope involves a good deal of risk to the operator even if but infrequently employed, while it is really practically useless except for the purpose of testing tubes and making minor examinations and gives such untrustworthy results that it should be discarded. Sufficient evidence has accumulated to give the X-rays a place in the treatment of all forms of tuberculosis. While a large number of skin diseases are benefited by the application of the rays it is advisable to treat only the most obstinate in this manner, as trivial affections can be relieved by other measures with less expense to the patient. The author concludes by saying: (1) That the wide difference of

opinion as to the value of the rays is largely due to the manner in which they are applied. (2) That if the best interests of our patients are to be considered the rays must be given a place as a therapeutic agent. (3) That injury to the operators from the rays during the past two years has been due to thoughtlessness or lack of familiarity with what is going on in the X-ray world. (4) That in applying the rays it is essential to know the quality as well as the quantity of the rays absorbed, and that this must be varied to suit each individual case. (5) That unless the operator has had a wide experience in the treatment of carcinoma, he should always consult a surgeon in each case, as it is certainly by the combination of surgery and X-ray that the best results are to be obtained.—*Medical Record*, May 6th, 1905.

An Emergency Poisoning Case.—J. W. Wainwright describes and illustrates a compact case containing practically all the essential means for treating emergency cases of poisoning.—*Medical Record*, May 6th, 1905.

Primary Epithelioma of the Epiglottis.—D. B. Delavan describes this case which came under observation so early that a circular area of hyperemia one-quarter of an inch in diameter on the laryngeal surface of the epiglottis was the sole evidence of disease. Six months later a positive diagnosis could be made and one-third of the epiglottis, including the diseased area was removed. Nearly two years have elapsed since the operation, but there is no evidence of recurrence.—*Medical Record*, May 6th, 1905.

The Present Limitations of Serum Therapy in the Treatment of the Infectious Diseases.—H. W. Berg reviews the principles underlying the production of antitoxic and antibacterial sera and their therapeutic application. The bacteria concerned in the production of the specific infectious disease fall into three classes. First, those which, like the bacilli of diphtheria and of tetanus, produce a virulent, real toxin which is set free in the culture media. Second, those bacteria which secrete but little or no free toxin but do contain a powerful endotoxin which is partly liberated only on the death and disorganization of the bacterial cells; good examples of this class are the pneumococcus, typhoid bacillus, the streptococci, etc. Third, those bacteria that produce no free toxins nor have in the bacterial cells endotoxins of any power, but in which the cell plasma contains other poisons in addition to the protein poisons common to all bacterial cells. The most important member of this group is the tubercle bacillus. Against the first group the antitoxic sera are available, but their success depends largely on the interval of time that has elapsed since the infection began, for the antitoxin can bind only such toxin as has not yet had time to enter into combination with the body cells. In tetanus the poison becomes fixed in the central

nervous system so rapidly that the serum has little chance for effect. The difficulty with the anti-bacterial sera is that the body's supply of alexin is very small, so that theoretically the injection of the serum should be accompanied by an additional dose of fresh normal animal serum to supply this deficiency; an impracticable procedure. The attempts to treat one disease by means of the antiserum of another, as has been attempted by injecting diphtheria antitoxin in pneumonia and cerebrospinal meningitis is repugnant to the principles of scientific serum therapy and tends to discredit its principles. The use of Moser's antistreptococcus serum in scarlet fever in the Vienna hospitals has not given results equal to those obtained by the author in the Riverside Hospital, following the classical lines of treatment. The introduction into the body of a child of the large amounts of serum required by Moser's plan is also objectionable owing to a possible hemolytic action.—*Medical Record*, May 6th, 1905.

Scissors for Cutting Secondary Membranous Cataracts.—E. L. Oatman has designed special scissors to be used for cutting the membranous bands sometimes forming after cataract extraction. One point is blunt and the other, which is sharp, is ground to a knife edge on its back, so that after introduction into the anterior chamber it may easily perforate and pass below the membrane.—*Medical Record*, May 6th, 1905.

Pneumatocele of the Cranium.—L. L. McArthur, Chicago (*Journal A. M. A.*, May 6), reports an operation for this condition, and discusses the diagnosis and treatment. The etiologic factors are chiefly two—traumatism and sudden increased pressure within the buccal and oral cavities. Fifty per cent. of the reported cases have occurred spontaneously, so far as history of injury of inflammatory conditions are concerned. During the growth of the tumor, sneezing or blowing the nose may cause an appreciable increase of the size of the tumor or external pressure may cause escape of air into the oral cavity. Because of the separation of the periosteum from the bone osteophytes may be produced, and this accounts for the irregularities felt when the tumor is collapsed. With modern antiseptic methods the treatment has become more simple and successful. In nearly every case a perfect cure can be effected if a free opening is made with due care so to dispose the incision as to make the point of final healing immediately opposite the bony perforation through which the air entered the tumor. McArthur quotes the conclusions of Costes, of Bordeaux, as follows: 1. Pneumatoceles are very rare. 2. They always depend on perforations of the bony walls. 3. They are always tympanitic. 4. They are more or less reducible by pressure. 5. They can take their origin only from the mastoid or the frontal sinuses. 6. They are of very slow and indolent formation. 7. They are never dangerous except from complications (infections). A bibliography is appended.

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Under whose presidency last month's meeting of the Ontario Medical Association was so successful

The Canadian Journal of Medicine and Surgery

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Editorials.

THE TWENTY-FIFTH ANNUAL MEETING OF THE ONTARIO MEDICAL ASSOCIATION.

THE twenty-fifth annual meeting of the Ontario Medical Association was held on the 6th, 7th, and 8th of June, in the Medical Faculty Building of the University of Toronto. Over two hundred and twenty members registered. Thirty-six papers were read.

Among the papers of special interest was one on "The Surgery of the Stomach, from the Standpoint of the Clinician," by Dr. A. J. Ochsner, of Chicago; and one on Neurasthenia, by Dr. W. B. Pritchard, of New York.

In the afternoon of June 6th, Dr. Wm. Burt, of Paris, delivered a resourceful address on the war against the microbe, expressing the strong conviction that philanthropists should assist in this great work of research. He denied that surgery had reached its limit, in fact it was decidedly in the active stage. The spread and omnipresence of the microbe were patent proofs of the existing room for research work on a larger scale than ever. The microbe had still the best of the conflict. Only through the establishment of schools for research work by gold kings could the study be untrammelled and unfettered.

Canadians had already done considerable research work. Although this study could be carried on in our larger cities to greater advantage, the smaller schools had amply proven the advantage of personal supervision on the part of the teacher. Many of the improvements and advances in the profession had been due to the observation of the circumscribed country physician. The source of human happiness could be materially increased by the stamping out of some preventable diseases. If the laity could understand the disastrous effect of oral sepsis there would be no dissenting voice in the use of the individual communion cup.

The microbe was a cowardly enemy, inasmuch as it attacked systems weakened from the lack of proper nourishment, from living in closely-crowded, ill-ventilated tenement houses, or from working longer hours than were consistent with a healthy system. In Greater New York 60,000 children went every morning to school hungry. It was upon the children that the future of the country depended, and every country that depended on child labor was bankrupt, morally, socially and politically.

Touching on work among inebriates, Dr. Burt strongly endorsed the Ontario Society for the Reformation of Inebriates as worthy of strong support.

Dr. Burt also referred to the advisability of the appointment of a Minister of Health. There was no more important subject than public hygiene, which warranted more attention than had yet been paid to it, he said. A Minister of Health would be one of the most important portfolios any Government could have.

In a paper, entitled "A Plea for a Minister of Health," Dr.

Hodgetts, Secretary of the Ontario Health Board, dealt with the functions which would devolve on a Minister of Health, if such a portfolio were established as part of the Provincial Cabinet. The members of the Association were delighted with the new idea, and a strong deputation was appointed to bring it to the notice of the Premier of Ontario and urge its adoption.

General approval met Dr. D. Campbell Meyers' advocacy of the establishment of wards in general hospitals for acute nervous and mental diseases, and a committee was appointed to memorialize and wait upon the Premier and Provincial Secretary to ask for the establishment of such wards.

The Committee on Public Health advised the Association to lend its assistance to further the demand for an institution for the housing and treatment of inebriates to be maintained by the State. They declared they were influenced by the fact that wealthy drunkards might be treated in private inebriate asylums, while no provision was available for the poorer victims of the habit.

This committee also advocated the offer of aid towards the establishment of municipal hospitals for tubercular patients under the provisions of the Stratton Act. Lastly, it considered the time opportune for a campaign in favor of county medical health officers.

Festivity did not form a large feature of the meeting. The President, Dr. Wm. Burt, entertained the Committees of the Association at dinner, on the evening of the 7th. An automobile trip had to be cancelled owing to wet weather. A general invitation was given to the members to attend Ben Greet's Pastoral Play at the University.

The Nominating Committee having recommended the following list of officers, a resolution was passed declaring them elected: President, Dr. Geo. A. Bingham, Toronto: First Vice-President, Dr. Ingersoll Olmsted, Hamilton; Second Vice-President, Dr. E. B. Echlin, London; Third Vice-President, Dr. A. Gillespie; Fourth Vice-President, Dr. Hadley Williams, London; General Secretary, Dr. Charles P. Lusk, Toronto; Assistant Secretary, Dr. Samuel Johnston, Toronto; Treasurer, Dr. Frederick Fenton, Toronto. The installation of the officers concluded the business of the meeting.

J. J. C.

A NEW HOSPITAL FOR TORONTO.

THE Ontario Government, as part of the scheme of aid to the University of Toronto, propose to establish a new hospital in this city, and the site is to be chosen near the Medical Faculty Building of the University of Toronto. The estimated cost of the site and buildings is put at a million dollars. Of this sum, $250,000 is to be contributed by the Provincial Government. It is hoped that $200,000 will be voted by the city of Toronto, to aid in purchasing a site for the new hospital. It is said that a part of the remaining $550,000 will be paid out of a fund accruing from the sale of the present Toronto General Hospital site and buildings. It is also expected that gifts of money in aid of the new venture will be offered by wealthy and public-spirited persons, $100,000 having already been given by one benefactor, and $100,000 having been promised by another.

The money given by the Ontario Government is not in reality granted for an hospital, but as a gift to the University. The hospital is merely the *locus in quo*, where work for specific purposes, constituting clinical facilities for the medical faculty and students is to be done. It will be a Provincial institution, with public and semi-private wards. It will be the clinical hospital of the Medical Faculty of the University of Toronto. It seems probable, therefore, that, for clinical purposes at least, all pauper patients admitted to the new hospital will be handed over to its regular staff, which will consist of clinicians belonging to the University Medical Faculty. Semi-private patients would, of course, be allowed to select their own physicians, the Government grant being given only to such hospitals as permit all qualified practitioners to treat cases inside their walls.

The principal consideration for placing the new hospital near the University of Toronto is to facilitate the work of clinical instruction in this city. The present General Hospital is situated at a considerable distance from the Medical School, and the giving of clinical instruction necessitates a good deal of journeying between the General Hospital, where most of the work is done, and the Medical School.

The modern craving for hospital treatment is shared in by the rich as well as the poor. The latter go to hospitals from necessity, the former from choice. Thirty years ago the rich almost never went

to hospitals for treatment; to-day hospital managers are perplexed to find accommodation for them. We do not stigmatize this condition of affairs; we merely chronicle it. All the same, the poor should have first choice. Hospitals supported by Provincial and municipal funds should be chiefly for the use of the needy—hospitals for the rich ought to be built and maintained by the rich, out of their own resources. The "Thirty-fifth Annual Report upon the Hospitals and Charities, etc., of Ontario, for the year ending 30th September, 1904," shows that the General Hospital, Grace Homeopathic Hospital, the Hospital for Sick Children, St. Michael's Hospital and the Western Hospital, received, during that year, $34,040.50 from the city of Toronto, in payment of patients' maintenance. The daily municipal grant to an hospital, being 50 cents per capita, would be $182.50 for a year. This sum, divided into the total city grant, shows that the daily average of city order patients in Toronto during last year was 187. Now, as these are the only patients the city is bound to find accommodation for, the actual hospital provision made in this city for the sick poor must be sufficient. Should well-to-do citizens or people from other municipalities resort to the hospitals of Toronto, they do so for their own convenience; but that is no reason why Toronto ratepayers should vote a large sum of money to further the increase of hospitals in this city. The general hospital requirements of Toronto are well served by the General Hospital in the east, St. Michael's in the centre and south, the Western Hospital in the west, and Grace Homeopathic Hospital in the north. The eastern part of the city would be left rather bare of hospital provision if all the buildings of the present General Hospital were converted to other uses; but when the new hospital is built a small hospital could be maintained at the old stand, which would probably suffice for the hospital requirements of the east end of Toronto.

Then, again, there is an excellent reason why the older institutions should continue to receive clients, even from the poor. The new hospital may be used principally for clinical purposes. Now, patients entering an hospital are not animated by a single desire to serve as object lessons for the clinical instruction of students. In fact, if allowed to choose, and this right could not be denied them by the city, municipal order patients might prefer to enter an hospital in which the treatment of diseases would be the sole professional object of the medical staff. Hence, we think

it is quite possible that Toronto may not vote $200,000 to purchase a site for an hospital of the kind contemplated.

As a further indication of the wide-reaching influence of this new hospital venture, we notice that the Medical Faculty of Queen's University, Kingston, request "a proportionate grant for the development and improvement of medical education in Eastern Ontario." "What is sauce for the goose is sauce for a gander," and Queen's University believes that if the Provincial Government is going to depart from the educational policy of the past by grants of public money, the work done for charity and medical education by the Kingston medical faculty should also be recognized. It is quite possible that a similar request may be made by the Western University of London.

Before forming an opinion on the outcome of the request made by Queen's University, it may be well to remember that Michigan has for many years maintained by most liberal grants a university hospital at Ann Arbor, in connection with the State University. Michigan has several other medical institutions; but its grant for medical education is given to but one institution—the State University. The University of Toronto, which is a Provincial institution, has received financial aid from the Province and will continue to receive it. Queen's University, not being of the same class, has no real claim for receiving Provincial support.

J. J. C.

EDITORIAL NOTES.

Dover's Powder.—Dover's powder, which has been used in medical practice for over two centuries in England and has been introduced into the American, German and French pharmacopœias, was invented by Thomas Dover, M.B., an English physician (1660-1742). The inventor's directions for the preparation of Dover's remedy are:

Take Opium one ounce, Saltpetre and Tartar vitriolated, each four ounces; Ipocacuana one ounce, Liquorish one ounce. Put the Saltpetre and Tartar into a red-hot mortar, stirring them with a spoon till they have done flaming. Then powder them very fine; after that slice in your Opium, grind these to a powder and then mix the other powders with these. Dose from forty to sixty or seventy grains in a glass of White Wine Posset going to bed. Covering up warm and drinking a quart or three pints of the Posset, drink while sweating. And the prognosis of the case after the adoption of the author's advice is thus stated in his own words: "In two or three hours, at furthest, the patient will be perfectly free from pain; and though before not able to put one foot to the ground, 'tis very much if he cannot walk the next day. When it is taken keep

your bed till next day noon. This remedy may be taken once a week, or once a month." Anticipating doubts which practitioners might naturally feel about the dosage, he says: "Some apothecaries have desired their patients to make their wills, and settle their affairs before they venture upon so large a dose as I have recommended, which is from forty to seventy grains. As monstrous as they may represent this, I can produce undeniable proofs where a patient of mine has taken no less a quantity than a hundred grains and yet has appeared abroad the next day. This notion of theirs proceeds entirely from their ignorance and from the want of knowing the nature of those ingredients that are mixed up with it, for they naturally weaken the power of the opium."

The Dover's powder of the French Codex, Poudre de Dower, is nearly the same as that originally used by Dr. Dover, the chief difference being the substitution of dry extract of opium for opium; it is composed of sulphate and nitrate of potassium, each forty parts, and dry extract of opium, ipecacuanha, and liquorice root, each ten parts, the whole to be made into a homogeneous powder. The formula, according to the British Pharmacopœia is: "Ipecacuanha Root in powder ½ ounce, Opium in powder ½ ounce, Potassium Sulphate in powder four ounces." Dover's powder, as now prepared, contains in every ten grains one grain each of opium and ipecacuanha, and eight grains of sulphate of potassium. The last-named ingredient is supposed to be entirely negative in producing the physiological effects, which are sleep and diaphoresis. The latter is perhaps favored by the ipecacuanha, but is essentially produced by the opium. Needless to say, this valuable remedy has been used by many generations of physicians in treating the forming stages of muscular rheumatism, and the commencement of attacks of coryza, sore throat, laryngitis, bronchitis, pleurisy, pneumonia, enteritis, etc. When full diaphoresis is desired the dose may be fifteen or twenty grains, and its operation may be promoted by hot drinks, thick bed-clothes, etc.

Japanese Hospital Nurses.—That Japanese nurses are as skilful as the best nurses of America is the opinion of Mrs. Anita Newcombe McGee, M.D., who recently returned from Japan to the United States. This lady took with her to Japan nine American nurses who were appointed by the Japanese authorities to serve in the hospital ships running to Dalny and the Yalu River, as well as at the great base hospital of Hiroshima. Mrs. McGee says: "All the nursing in the field and part of that on the hospital ships and in Japan is done by men. Some are soldiers who have learned only to carry stretchers, while even the most skilled are inferior to the women nurses of the Red Cross Society in the length and completeness of their training. The training school of the Red

Cross Hospital at Tokio requires three months of probation, during which twelve hours daily are spent in cleaning and other manual work about the hospital. For the next year and a half alternate days are spent in the same way, and the others in attending lectures and studying from notes. At the end of this time the pupils receive printed text-books for reference, and are sent into the wards for eighteen months of practical nursing before graduation. The Red Cross nurses' training is military throughout, and a large proportion of women take it primarily as an act of patriotism. These marry or take up other occupations after finishing their hospital course. All nurses trained by the Red Cross Society must engage to serve in the army, if physically able, at any time within fifteen years after graduation. By the beginning of autumn, 1904, the Society had supplied for military service all available graduates and pupil nurses as well—a total of 2,200 women, besides 594 men. One of the most remarkable things about these Japanese women was their extraordinary strength and endurance. At the Hiroshima Hospital they were on duty for twenty-eight hours upright with only such sleep as they could get in the ward ante-room where they were within call. Like all Japanese they drank hot tea at any hour, but they took scarcely fifteen minutes to eat their light, cold meals. They thought nothing of carrying a man on their backs. They were cheerful, generous and always willing and uncomplaining. The work of the Japanese nurses in the operating room is the same as that of nurses elsewhere. In the wards they pay great attention to the wishes of the individual patient. If he is asleep, the taking of his temperature is postponed; if he feels hungry, if he wants one of his eggs boiled, or if he needs water after drinking his medicine from its bottle, a nurse waits on him. The Japanese patient's ideal of a trained nurse is one as kindly attentive as are his own female relatives."

Local Anesthesia by Injections of Sterile Water.—In an article published in the *Journal of the American Medical Association*, April 29th, 1905, by Dr. Stevens, Bridgeport, Conn, allusion is made to the practice of Dr. Samuel G. Gant, New York, who produces local anesthesia in his patients by injections of sterile water. Dr. Gant began experimenting in 1901, and showed that local anesthesia could be quickly obtained by injecting into the skin, mucosa and deeper structures sufficient water to produce a

glassy appearance of these tissues, the anesthesia being due apparently to the pressure on the terminal nerve filaments. His results were so satisfactory that he now employs this method to the exclusion of general and medicinal local anesthesia in most of his rectal operations. The method of producing water anesthesia is very simple. The only requirements are warm sterile water and a hypodermic syringe fitted with a long fine needle. The temperature of the water is unimportant in producing anesthesia; but warm water causes less discomfort than hot or cold water. After thoroughly sterilizing the syringe, needle and skin, the skin along the line of incision is first anesthetized by introducing a fine needle into it almost parallel to the surface. A few drops of water are slowly injected, causing a wheal to appear which is absolutely without sensation. The point of the needle is pushed further into the skin. Through this area of insensibility a few drops of water are again injected. Another wheal arises close to the first and by extending those injections farther the whole line of incision is distended and rendered anesthetic. When the syringe is empty it is withdrawn, refilled and the needle reintroduced within the anesthetized area, and the injections are repeated as before. After the skin has been anesthetized the needle is pushed through this distended line into the subcutaneous tissue, and injections are made until a firm, whitish, ridge-like swelling, about as wide and thick as the index finger, is produced. If the procedure has been well carried out, the skin and underlying tissue can be incised and, in almost every instance, without pain. In operations for external, thrombotic hemorrhoids it is only necessary to anesthetize the skin over the clot, which can be turned out after the incision is made. For external, cutaneous hemorrhoids both the skin and tumor should be tightly distended to produce anesthesia. In operating on internal, venous hemorrhoids the injection is made into the centre of the tumor until it is distended and turns white, when it can be removed painlessly by the ligature method. In operations for fistula in ano the skin and subcutaneous tissue, up to the anal margin, should be distended and, in some cases, the mucosa, submucosa and external and internal sphincters have to be infiltrated. In operating for sebaceous cysts, the skin overlying the cyst is first anesthetized, and then the needle is plunged between the skin and the cyst wall; as the water is injected it separates the skin from the cyst wall and allows the adhesions, if present, to be cut without injuring the sac. In operating for varicose veins the skin and subcutaneous

tissues are distended and the veins ligated. Dr. Stevens feels sure that this method will become general when surgeons have become familiar with it.

De Renzi's Views on the Prevention and Treatment of Heart Affections.—E. De Renzi, in *Berliner Klinische Wochenscrift*, urges that greater attention should be paid to warding off and to treating diseases which are known to favor the development of cardiopathy. Acute articular rheumatism stands in the front rank in this respect and demands vigorous treatment. Daily doses of 90 to 120 grains of salicylate of sodium are none too large. These doses may produce symptoms of salicylic acid poisoning; but this inconvenience is slight compared with the danger arising from the installation of an incurable heart affection. The delay of a day or even of a few hours may allow the inception of a fatal cardiac defect which might have been avoided. Gout and obesity should be promptly and effectually treated for the same reason. De Renzi protests against Huchard's advocacy of repose as beneficial to patients who have heart lesions. His own opinion is quite the opposite. He believes that exercise trains and strengthens the heart and is the sovereign remedy for all cardiopathies. As the heart becomes hypertrophied cardiac defects are benefited, and the heart muscle develops as it is exercised. J. J. C.

Errata in the June Issue.—(1) In the leading editorial article, entitled "Divergent Opinions on Matters Relating to Small-pox Infection," the words "aerial conversion," 10th line from the bottom of page 405, should be "aerial convection." The same error appears at two other places in the same editorial. (2) In a book review of "The Vermiform Appendix and its Diseases," by Howard A. Kelly, A.B., M.D., page 432, for "appendictomy" read "appendectomy."

PERSONALS.

Dr. Freeman has resigned as Medical Superintendent of the Hamilton Hospital.

Dr. J. W. Marshall, of Owen Sound, was recently in town, visiting his brother, Dr. J. P. Marshall, 577 Spadina Avenue.

Dr. Graham Chambers has retired from general practice and will devote his time from now on to Internal Medicine and Cutaneous Diseases.

Dr. George A. Peters, we are glad to say, is recovering nicely from his recent illness and hopes to resume practice about October 1st. He is at present enjoying a vacation near London, Ont.

Obituary

DEATH OF DR. JAMES THORBURN.

Dr. James Thorburn, one of Toronto's oldest and most esteemed medical practitioners, died on May 26th, at his residence, corner of Spadina Road and Bloor Street.

Dr. Thorburn's death was rather sudden. The previous day, though he had not been well for three years, he was down at his office, at the North American Life Assurance Company, and attended a meeting of directors. The same evening he was taken ill, but he was not considered to be in a serious condition. His family were with him when he expired. Dr. John Caven, Dr. William Caven, and Mr. Irving Cameron were his medical attendants.

Dr. Thorburn was in his seventy-fifth year. He had practiced in Toronto ever since he completed his medical education in 1855. His standing in the profession and professionally was amply attested by the number of important posts he was selected by brother physicians and business men of the city to fill. By a peculiar co-incidence interment took place upon the birthday of Dr. Thorburn's elder daughter, Mrs. Bruce Riordan.

Dr. Thorburn was a son of the late David Thorburn, member for Lincoln in the old Canada Assembly. He was born in Queenston, on November 21st, 1830. His early education was under the late Dr. Russell, of Stamford. He entered Toronto University in his teens, and obtained his medical education at the Toronto School of Medicine.

He took a post-graduate course in Edinburgh, and for some years filled the chair of Pharmacology and Therapeutics in the medical faculty of the Toronto University. He was physician to Upper Canada College and consulting physician to the General Hospital, and held several similar appointments for other institutions. He was for some years surgeon to the Queen's Own Rifles, and was with that corps at Ridgeway in 1866. He retired as surgeon-major in 1879, and became examiner of the College of Physicians and Surgeons in the same year. In 1896 he became vice-president of that body. In 1895 he was president of the Canadian Medical Association, and in 1897 became the president of the Ontario Medical College.

He was a brilliant writer to the medical press, and in addition published a "Manual of Life Insurance Examinations." He was the medical director and vice-president of the North American Life Assurance Company. For some years he was president of the Imperial Loan and Investment Company.

On June 8th, 1858, he married Miss Jane McTavish, daughter of Mr. Donald McTavish, of Grafton, Ont. The family consists of one son and two daughters. The son is Dr. James D. Thorburn. Mrs. Bruce Riordan, the wife of Dr. Bruce Riordan, is the elder daughter. The other is Miss Georgina Thorburn.

Dr. Thorburn was a member of St. Andrew's Church. He was a staunch Liberal of the old school.

The funeral took place on the following Monday to Mount Pleasant Cemetery. There were present a large number of medical men, both local and from the country.

DEATH OF DR. A. R. BOYLE.

Dr. A. R. Boyle died on May 27th, in Grace Hospital. Dr. Boyle had been living at Wychwood Farm, in York township. There he had a room and boarded himself. He became to ill to be left alone, and through the influence of the reeve of the township and Dr. Warren he was removed to the hospital, where he died the following day. Dr. Boyle was 70 years of age. In 1859 he graduated from Queen's, and for many years had a good practice in Wychwood Park. In 1895 he removed to Toronto, where he continued his medical profession at 172 Dovercourt Road, till a short time ago, when he went back to live at Wychwood Park.

IN MEMORY OF ALAN S. BURRITT.

IN MEMORY

Private Alan Schofield Burritt
12th Lancers

Who gave his life for his Country
In South Africa
On April 4th, 1901

Erected by 12th Lancers, past and present

Surmounted by the coat of arms of the 12th Lancers, thus reads the inscription on a very handsome brass tablet, received from the regiment by Dr. H. C. Burritt, of Wellesley Street, in honor of his soldier-son, who died at Kimberley of enteric fever during the South African War. It is the first time that the memory of a Canadian has been honored by an Imperial regiment in this way.

The family were deeply touched by the gift of the tablet, which has been erected in the family home, and forms one of their proudest possessions.

Alan Burritt was well and popularly known in Toronto. He was thoroughly imbued with the military spirit, and had served for five years in the North-West Mounted Police. Subsequently he took a course at Stanley Barracks, and was afterwards a lieutenant in the Prince of Wales Dragoons of Peterboro'. He was promised a Canadian Commission for South Africa, but as it failed to come in time he went to Aldershot, England, and enlisted as a private with the 12th Lancers, in the expectation of winning his laurels at the front, and obtaining a commission, as many spirited young men had done. He served in several engagements, and was of the relieving party when the siege of Kimberley was raised. It was shortly after the latter event that his career was cut short at the untimely age of 28 years.

Similar tablets have been erected by the 12th Lancers in memory of the other members of the regiment who fell in South Africa.

News of the Month.

CANADIAN MEDICAL ASSOCIATION.

As we have already announced, the thirty-eighth annual meeting of the Canadian Medical Association will take place this year in Halifax, under the presidency of Dr. John Stewart, of that city, who, along with his Executive Committee and Programme Committee of Arrangements, are ardently working for the complete success of this meeting, the first which has been held in Halifax since 1881, when the number present just numbered fifty-three. If a united effort be put forth by the vice-presidents and local secretaries in the different provinces, especially in Nova Scotia, Prince Edward Island, New Brunswick, Quebec and Ontario, there should be a largely attended meeting. There are indications that Montreal and Toronto are both going to send down good contingents. Daily there are additions to the list of contributors, whose names we will publish in a later issue. This year all delegates will travel on the usual standard convention certificate plan, which means that every delegate when purchasing single first-class fare to Halifax, must get from ticket agent a standard convention certificate for himself, his wife or daughters if they accompany him. Delegates will kindly bear in mind that they do not have to get any special certificate from the General Secretary. If fifty are present holding standard convention certificates, all will be returned free to Montreal. Montrealers will, as well as delegates from Quebec, be returned for single fare. If there are three hundred present holding standard convention certificates, all will be returned free to their original starting point. This applies to all parts of Ontario, Manitoba, the Northwest Territories and British Columbia. Delegates from points west of Port Arthur, will not be allowed to use the upper lake routes when travelling by this certificate plan, in either direction. In all cases return transportation must be arranged for at Halifax. The usual time limit for conventions will be allowed for points east of Port Arthur, namely, three days before and three days after the meeting. Our readers will kindly extend this information as much as possible; and those who intend contributing papers and being present, are requested to notify the General Secretary, Dr. George Elliot, 203 Beverley Street, Toronto, without delay. No arrangement can be secured for return *via* Boston or New York after the meeting; and those desiring to be routed thus should ask for tourists' tickets. Arrangements have been completed for boat trip, Toronto or Kingston to Montreal or Quebec *via* the Richelieu and Ontario Navigation Company's line.

FINAL EXAMINATIONS AT TORONTO AND TRINITY UNIVERSITIES.

THE following results of the Fourth Year Examinations in the Faculties of Arts and Medicine at the University of Toronto and Trinity College were handed out after the meeting of the Senate last month:

FACULTY OF MEDICINE.

Final Examination—The following received degrees with honors: (1) W. S. Lemon, (2) G. Ford, (3) R. H. Bonnycastle, (4) S. R. Dalrymple and G. G. Little, (6) Miss McAlpine, (7) M. E. Gowland, (8) A. G. McPhedran, (9) W. Roberts, (10) C. Schlichter, (11) Miss M. E. Reid.

Medicine, Clinical Medicine, Pathology and Therapeutics—(1) W. S. Lemon, (2) S. R. Dalrymple and G. G. Little, (4) F. J. Snelgrove, (5) J. H. McPhedran, (6) A. G. McPhedran, (7) G. Ford, (8) Miss M. E. Reid, (9) M. E. Gowland, (10) R. H. Bonnycastle, (11) W. Merritt, (12) W. Roberts, (13) F. J. Fuller.

Surgery, Clinical Surgery, Surgical Anatomy and Pathology—(1) W. S. Lemon, (2) G. Ford, (3) G. G. Little, (4) S. R. Dalrymple (5) W. Merritt, (6) C. Schlichter and F. J. Snelgrove, (7) W. C. Toll, (9) J. H. Soady, (10) W. Roberts, (11) M. E. Gowland, (12) C. E. Spence and R. H. Bonnycastle, (14) S. J. Boyd and A. M. Rolls.

Obstetrics, Gynecology and Pathology—(1) W. S. Lemon, (2) S. R. Dalrymple, (3) J. H. Soady, (4) G. Ford, (5) C. Schlichter, (6) M. E. Gowland, (7) A. G. McPhedran, (8) W. Merritt and W. C. Toll, (10) G. G. Little, (11) W. Roberts, (12) Miss M. E. Reid, (13) F. J. Fuller, (14) J. H. McPhedran, (15) F. J. Snelgrove, (16) G. I. Black.

Medical Jurisprudence, Toxicology, Hygiene and Medical Psychology—(1) W. S. Lemon, (2) W. Roberts, (3) Miss M. McAlpine, (4) G. Ford, (5) W. Merritt, (6) Miss M. E. Reid, (7) J. H. Soady, (8) A. G. McPhedran, (9) M. H. V. Cameron and M. E. Gowland.

UNIVERSITY OF TRINITY COLLEGE.

Final M. D. C. M. Examination—Certificates of Honor—W. J. Dobbie (gold medalist), R. R. B. Fitzgerald (silver medalist), E. F. Atkinson. Class I.—R. D. Orok, C. A. F. Caviller, W. J. Corrigan, J. A. Kinnear, W. Dales, H. C. Kindred, C. W. Field. Class II.—A. R. Curtis, H. W. Burgess, G. E. Seldon, T. C. Brereton, J. R. Serson, J. S. Springer; R. J. Carson, B. T. Davey (equal); E. C. A. Reynolds, W. H. Godfrey; G. H. Carlisle, F. W. Rolph (equal): J. A. Gallagher; Miss M. E. Donglan, G. W. Hall (equal): M. J. C. Naftel, H. M. East, J. A. Collins, W. B. Cassels, J. S. Pritchard, J. Boyce, J. P. Campbell, A. J. Weart, R. M. Cumberland, E. J. Hagan. Class III.—H. Glendenning, T. H. Argue, F. W. McKee, S. J.

Staples, G. S. Strathy, A. E. Murphy, J. G. Middlemas, C. A. McKay, Miss G. L Urquhart, A. W. Keane, C. Howson; S. Blumberger, W. J. J. Brawley (equal); D. C. Lochead, W. A. Peart, H. A. Abraham, J. M. Dale, D. H. Gesner, B. E. Tughen, G. D. R. Black.

BANQUET OF THE UNIVERSITY OF TORONTO ALUMNI ASSOCIATION.

"We meet to-night under happy auspices. I see before me a noble assemblage of graduates, all zealous for the interests and objects of the university. The last turn of fortune's political wheel of fortune has been not unfavorable to this institution. I believe that Mr. Whitney will do what he says he will do for the university. I went once to hear him speak on a question trying to a politician of candor and integrity, and on my return I was asked how he had impressed me. 'His is the eloquence,' I replied, 'that to me is of most value. He spoke like an honest man.' Mr. Whitney's policy toward the university is a wise and liberal one. In earlier days the university was the final training place for culture, but now it has extended itself into an emporium of all branches of knowledge, and not least of those sciences which are the master key to our national prosperity and wealth. Once a few bookcases and a small staff were all that a university required, but to make a great scientific institution requires a combination of resources. The aiding of the university is a wise policy from even the commercial standpoint, but this does not mean the abandoning of culture, and the turning out of money-makers instead of good and wise men."

With these words did Dr. Goldwin Smith begin his address in responding to the toast of "Alma Mater" at the sixth annual banquet of the University of Toronto Alumni Association, held on the 9th ult., in the university gymnasium. The banquet was a complete success, the attendance being even larger than that of last year. Nearly one-fourth of the number present were ladies. The speakers of the evening included Dr. Smith, Vice-Chancellor Moss, Rev. Canon Welch, Hon. Dr. Pyne, Minister of Education; Dr. L. F. Barker, of Johns Hopkins, and Judge Dean, of Lindsay. An interesting feature was the first appearance of a representative of the faculty of Trinity College as a federated institution.

The chair was occupied by Dr. Reeve, President of the Alumni. The following gentlemen sent regrets at their enforced absence: Hon. J. P. Whitney, Hon. G. W. Ross, Dr. Hoskin, K.C., Dr. Temple, J. Ross Robertson, Prof. Scrimger, of Montreal; J. W. Flavelle, Christopher Robinson, K.C., Frederic Nicholls, W. K. George, Principal Sheraton, T. Eaton, D. D. Mann and William Mackenzie.

President Loudon proposed the health of "The King" in a graceful little speech. King Edward had earned by his conciliatory

tact the title of "Edward the Peacemaker." Even when he visited turbulent Ireland, rollicking peasants formed his loyal body-guard. When he went abroad, he carried not "the big stick," but the pipe of peace.

In the absence of Provost Macklem, through illness, Rev. Canon Welch, as the official representative of Trinity College, was called upon to propose the toast of "Alma Mater." Only the bold man, he said, would have prophesied ten years ago that a provost or ex-provost of Trinity would be proposing the toast in hand. Though his own alma mater was on the banks of the reedy Cam, he looked upon Toronto as his alterna mater. The association should work to emphasize the college spirit; it might also do a great deal to maintain and uplift the ideals of university education. The object of all education was to train for life and not for a special occupation. Living encyclopedias were not wanted, but men and women filled with good citizenship.

The reception given Dr. Goldwin Smith on his rising to respond to the toast was a repetition of that which greeted him on his entry, the entire assemblage rising and cheering him heartily. After uttering the words quoted above, Dr. Smith went on to speak of the federation spirit in the air. Trinity had come in; McMaster was coy, but would come in, too. Trinity College at Cambridge and Christ Church College at Oxford had many famous graduates, but each college was proud to be a part of a greater university. Hon. Mr. Whitney had promised to revise the constitution of the university, All the works of man in time required revision. It would be well to simplify the administration, and vest more power in one head, and have a less unwieldy senate. The public should be lenient in their judgment of the faculty, for it was rare to find men in whom great knowledge of a subject was combined with the highest powers of exposition. Dr. Smith referred to the recent investigation as lowering the honor and dignity of the university. It was inevitable that in every limited circle envy and jealousy should arise which would breed tattle and newspaper copy. By cleaving to the higher ideals of university life these abuses would be overcome, and Toronto University would continue to flourish and prosper.

Col. W. N. Ponton, of Belleville, who followed, opened by saying that he could not better sum up the alumni's estimate of Dr. Goldwin Smith than by quoting Dr. Smith's description of Lord Rosebery as "a man of infinite talent, attractiveness, and grace." In his own day at the university, there were no lady graduates, and present-day students must appreciate the raising of the standard of chivalry because of the presence of the ladies. Col. Ponton deprecated the proposal to take a part of the campus as a site for convocation. To the old graduates such an action would seem almost a desecration, for the campus was hallowed by many pleasant memories, and when they crossed it they felt a thrill of conscious pride and filial affection.

Judge Dean, of Lindsay, who graduated from Victoria 51 years

ago as a member of a class of two, gave a witty and pithy address. Since the federation of Victoria and Toronto, he said, he felt like the boy whose father had married his deceased wife's sister. The boy did not know whether to call her mother or aunt, but he did know she was a mighty fine old lady. He was further puzzled by the addition of Trinity. The judge said he had first opposed the federation of Victoria and Toronto, for he feared Victoria would degenerate into a mere theological school, and he believed colleges, like men, should keep all their faculties about them. Chancellor Burwash's logic converted him, and now he honored his Alma Mater :—"Three in one, one in three, God bless her!"

Vice-Chancellor Moss proposed "Our Guests," coupling with it the names of Hon. Dr. Pyne, Dr. John Seath, and Dr. Lewellys F. Barker, of Johns Hopkins.

Hon. Dr. Pyne said that, now that the university was provided for, the Government would have time to think of other educational interests of the province which also needed adjustment. It must be remembered that 95 per cent. of the people of the province got their whole education in the Public and High schools, and if these could be improved the Government would be happy indeed to bring it about. He would deem it his privilege to confer with the authorities of the university and with High and Public school inspectors and teachers with a view to formulating a policy which would meet all the province's educational needs.

Dr. Seath, Inspector of High Schools, said that the Government, in recognizing the university's needs, had taken the logical course. It could now afford to take steps to meet the wants of the High and Public schools. One question which should be looked into was the decreasing number of graduates going into the teaching profession.

Dr. Barker's address was an admirable mingling of wit and wisdom. After a reference to Dr. Osler's chloroform joke, and the concern manifested by the Chicago papers in his own opinions on the subjects, Dr. Barker spoke eloquently and enthusiastically of the future of medicine. Beginning in myth, and passing through the stage of dogma, it was rapidly taking rank as an exact science. It was still largely empirical, but it was struggling to become national. The doctor of the future would get more out of his patient and less out of his own head. Dr. Barker said he was not willing to place a limit at to what medical science would be in the future, but the outlook was a hopeful one. The time might be near when a national aggressive therapy would go into the body and compel the organs to resume their normal functions. In this great work of medical advancement, the faculty and graduates of Toronto University would play an important part.

Dr. Bell, President of the New York branch of the Alumni, spoke briefly on the necessity for fostering the university spirit. W. D. McDonald and W. S. Lemon responded to the toast of "The Graduating Classes," the former speaking for the arts men, and the latter for the 157 medicos, the largest class in the history of the university.

ANNUAL COMMENCEMENT EXERCISES OF THE UNIVERSITY OF TORONTO.

OVER two thousand people crowded into the gymnasium of Toronto University on the afternoon of Friday, June 9th, to attend the annual commencement exercises and witness the conferring of degrees upon six distinguished Canadians and on five hundred graduates. The promised completion of the new convocation hall in time for use next June is a consummation devoutly to be wished, for to the majority of those in attendance at this function, the afternoon was one of discomfort. Many stood throughout the exercises, which lasted nearly three hours, while even those holding seats were uncomfortably crowded. The heat in the building added to the general discomfort.

During the ceremony of conferring the honorary degrees quiet was maintained, but once this period of restraint was over the light-hearted students surrendered themselves to the spirit of the occasion. They yelled their college yells and sang their college songs. As the graduates appeared on the platform to receive degrees, the usual good-natured chaff and badinage was showered upon them by their fellows, who in turn became targets for raillery during the brief moments when they were the centre of attention. These interludes contributed to the enjoyment of the crowds present, while they provoked only indulgent smiles from the Chancellor, Sir William R. Meredith, the Vice-Chancellor, Hon. Chief Justice Moss, and the other grave and reverend seignors upon the platform.

Of the six honorary degrees conferred at the commencement exercises of Toronto University the greatest interest centred about the personalities of Dr. Lewellys Franklin Barker, who received the degree of M.D. (honoris causa), and Capt. Edouard Gaston Deville, F.R.C.S., Surveyor-General of the Dominion of Canada, who was made an LL.D. Dr. Barker, who was graduated from Toronto Medical College in 1890, with the reputation of being the ablest student ever turned out by the school, is now considered the leading anatomist on the continent of America. When Dr. William Osler, Toronto's distinguished son, resigned his chair at Johns Hopkins University to become regius professor of medicine at Oxford, it was to Canada that the great Baltimore university looked for a successor, and Dr. Barker was selected to take Dr. Osler's chair of medicine. It is confidently expected that Dr. Barker will in his new post score fresh triumphs as an investigator and teacher of medical science.

Dean Reeve, in presenting Dr. Barker for his degree, said that when he left Toronto in 1890 with his degree of M.B. and a few gold medals, a brilliant future had been predicted for him, and this prediction had been more than verified. Attracted by the fame of Dr. William Osler, Dr. Barker had gone to the Mecca of Canadian

students, Johns Hopkins University. He soon published a work on the anatomy of the nervous system, which was immediately accepted as an authority on the subject, and it was not long before Chicago University claimed his services. When Dr. Osler left Baltimore there were a host of applicants for the vacant chair, but Dr. Barker was unhesitatingly chosen for the most enviable position open to a medical man in America. Genial, scholarly and erudite, he was an ornament to his profession and an honor to Toronto University.

The Chancellor, Sir William Ralph Meredith, then conferred the degree upon Dr. Barker, and the latter signed the roll. In his brief address of acknowledgment Dr. Barker spoke of his great pleasure at the fact that his first honorary degree should come from the university where he had received his medical education. If he had done anything worth while in his profession it was because of the thoroughness of the training he had received from his instructors. He congratulated the graduates in medicine on the improved conditions under which they had received their education, consequent upon the union of the two schools and the centralization of energies. Canada and the United States offered unlimited opportunities for young physicians. Dr. Barker concluded by saying that he regarded his degree not so much a personal honor as a recognition of a certain branch of the medical profession.

Dr. Barker received an ovation of cheers from the assembly at the conclusion of his address.

The duty of presenting Capt. Deville was well performed by Prof. Alfred Baker. Capt. Deville, said Prof. Baker, was born in France and educated at the Naval College at Brest. After doing good work in the hydrographic service he came to Canada and was appointed by the Government as scientific explorer and inspector of surveys. In 1885 Capt. Deville was made Surveyor-General of Canada, and since then he had filled that post with distinction. There was no citizen of Canada who was not interested in or benefited by Capt. Deville's work. He was a member of the Royal Society of Canada and the Royal Astronomical Society of England. In conferring a degree upon Capt. Deville the university was honoring his mother country, France, which had contributed so much to the advancement of art, science and literature.

Capt. Deville's reply was a brief and modest one. He thanked the university for the honor it had done him, and which he appreciated highly.

As Capt. Deville took his seat the enthusiastic students broke into cheers, a compliment which the gallant captain blushingly acknowledged.

Hon. R. A. Pyne, M.D., Minister of Education, was presented by Rev. Chancellor Burwash in an apt address. Chancellor Burwash referred to Dr. Pyne's personal worth and services to the university as a member of a Government which had dealt so generously with the institution.

Dr. Pyne's reply was couched in a humorous vein. It was not the lot of every politician, he said, to occupy such a distinguished position, nor could he promise the graduates that they would all some day occupy the position he held in the Government. His predecessors had held the office for a long time, and if he followed their example the graduates of to-day would be too old to enjoy it. The visionary politician was not generally highly esteemed, but Dr. Pyne said he had always found the visionary man a man of ideas. Had anyone predicted six months ago that the financial needs of the university would be so amply met by the new Premier he would have been called a visionary. The Government which gave $30,000 a year to 'Varsity could give twice as much if it were needed, and as the province prospered so would the university.

Vice-Chancellor Moss, in presenting Æmilius Irving, K.C., for his degree, referred to him as the Nestor of the Ontario bar, he having been admitted to practice more than half a century ago. The Law Society of Upper Canada, of which Mr. Irving was treasurer, had numbered in its ranks many distinguished lawyers, jurists and statesmen, and such a society would choose only a man of the highest character for the position which Mr. Irving held.

Mr. Irving made a grateful address of acknowledgment, in which he spoke of his long acquaintance with the Vice-Chancellor. Mr. Irving spoke briefly of John Beverley Robinson, Hilliard Cameron, Blake, and other great names associated with the Law Society of Upper Canada.

Mr. Irving Heward Cameron, in presenting Dr. James Algernon Temple, spoke of his high standing in his profession and of his good service during his term as dean of Trinity Medical School.

Dr. Temple, in his reply, spoke particularly of the great work being done by the medical faculty of the university in turning out efficient graduates to minister to the needs of Canada's ever-increasing population.

Mr. John Seath, Inspector of High Schools and Collegiate Institutes for Ontario, was presented by President Loudon, who referred to Mr. Seath's services to the cause of secondary education. Mr. Seath, in replying, spoke approvingly of the senate's proposal to establish a department of education for the teaching of scientific pedagogy, psychology and other subjects. He congratulated the university on the financial aid given it by the Government.

The honorary degrees having been conferred the 500 or more graduates were called to the platform to receive their degrees, after which the medals and scholarships were presented. This ended the proceedings of the afternoon.

One hundred guests sat down at the luncheon given at noon by the Chancellor at the university. The luncheon was purely informal, the only toast proposed being that of "The King."

ITEMS OF INTEREST.

The American Orthopedic Association held its annual meeting for the current year at Boston, Mass., a few weeks ago. The 1905 Convention was the most successful in the history of the Association. The meeting for 1906 will be held in Toronto, and Canada has been honored by having its President chosen in the person of Dr. B. E. McKenzie. The Vice-Presidents are Drs. H. P. H. Galloway, of Toronto, and Charles Wilson, of Montreal.

Hotel Accommodation at Halifax next Month.—Medical men who will attend the annual meeting of the Canadian Medical Association at Halifax, N.S., August 22nd to 25th, are requested to communicate, as soon as possible, with C. Decker Murray, M.B., Chairman of the Information and Lodgings Bureau, 66 Queen St., Halifax, with a view to securing hotel accommodation in advance. The hotel rates vary from $1.50 to $3.00 per day.

Vice-Royalty at Victorian Order of Nurses' Home. — Her Excellency Countess Grey made a visit of inspection to the Victorian Order of Nurses' Home on Spadina Avenue, on May 26th, and presented a medal to one of the graduates, Miss Mary McBride Muir, who is to accept a post at St. John, N.B. Her Excellency was accompanied by Lady Evelyn Grey and Captain Trotter, and bouquets of flowers were presented by Miss Walls, the head nurse, as the party entered the building. The Countess expressed satisfaction with the management of the institution. Her Excelleney afterwards visited the Sick Children's Hospital and presented flowers to some of the patients.

Earl Grey Visits the University. — His Excellency Earl Grey, accompanied by Lord Bury and conducted by Mr. J. C. Eaton in his motor car, visited the University of Toronto, on May 26th. He was received at the main entrance by Premier Whitney, Chancellor Meredith, President Loudon, Dr. Wm. Hoskin, Dean Reeve of the Medical Faculty, and Professor A. B. Macallum. The buildings inspected were the main building, the School of Science, and the Library. Earl Grey expressed himself as delighted with the equipment of the University. He was particularly interested in the Paul Kane exhibition of paintings presented by Mr. E. B. Osler. His Excellency consented to open the new Convocation Hall on its completion in June of next year. He will then receive the honorary degree of LL.D. instead of at the commencement next month.

The Physician's Library.

Operative Surgery. By JOSEPH D. BRYANT, M.D., Professor of the Principles and Practice of Surgery, Operative and Clinical Surgery, University and Bellevue Hospital Medical College; Visiting Surgeon to Bellevue and St. Vincent's Hospitals; Consulting Surgeon to the Hospital for Ruptured and Crippled, Woman's Hospital, and Manhattan State Hospital for the Insane; former Surgeon-General of the N.G.N.Y.; Fellow of the American Surgical Association; Member of the International Society of Surgeons, and of the American Medical Association; former President of the New York Academy of Medicine and of the New York State Medical Association; President of the New York State Medical Society, etc. Volume I.: General Principles, Anesthetics, Antiseptics, Control of Hemorrhage and Shock, Treatment of Operation-wounds, Ligature of Arteries, Operations on Veins, Capillaries, Nervous System, Tendons, Ligaments, Fasciæ, Muscles, Bursæ and Bones, Amputations, Deformities, Plastic Surgery, Operations on Mouth, Pharynx, Nose, Esophagus and Neck. This volume contains eight hundred and ninety-eight illustrations, sixty-one of which are colored. Volume II.: Operations on the Viscera connected with the Peritoneum, the Scrotum and Penis, and miscellaneous operations, including those for some deformities of the External Ear. This volume contains eight hundred and ninety-five illustrations, thirty-nine of which are colored. Fourth edition. Printed from new plates, entirely revised and largely rewritten. New York and London: D. Appleton and Company. 1905.

As the title implies, this is a work dealing with operative surgery. The surgery of fractures and dislocations is not included, except in connection with some reparative operations, *e.g.*, the suturing of fractured patella. The author is an operating surgeon and he speaks with the authority of experience; he is a teacher and he explains surgical questions as a clinical teacher would do in instructing a class. Much space in the volumes is taken up with illustrations, but none too much, as they serve a good purpose in helping to elucidate the text. The instruments required in doing any operation, *e.g.*, in the operation for hernia, in that for intestinal repair, etc., are represented in half-tone illustrations, serving, no doubt, as useful reminders to refresh the memory of the surgeon.

Dr. Bryant does not limit himself to the expression of his own particular views, but gives fully the operations of other surgeons. This, no doubt, adds to the bulk of the volumes but cannot be

considered a fault. A surgeon of experience, who has familiarized himself with a particular method of doing an operation, and who has obtained good results from it, is not likely to change his method. A beginner is not in the same position and, before selecting a method of doing an operation, he should familiarize himself with the work of different operators.

The illustrations have been done in good style and the letterpress is excellent. Altogether, the book does credit to the author, artist and publisher. J. J. C.

Studies in the Psychology of Sex—Sexual Selection in Man. I. Touch. II. Smell. III. Hearing. IV. Vision. By Havelock Ellis. 6⅜ x 8⅞ inches. Pages xii.-270. Extra cloth, $2.00,net. Sold only by subscription to physicians, lawyers and scientists. Philadelphia: F. A. Davis Company, publishers, 1914-16 Cherry Street.

This is quite an interesting book, and deals with a subject not dealt with, for obvious reasons, by many authors. Its four parts deal with the sexual selection in man in relation to: 1. Touch. 2. Smell. 3. Hearing. 4. Vision. The author does not anticipate or attempt to, as yet, give any definite scientific results as to the subject chosen, but contents himself, and that wisely, with something more preliminary. He bases his theory on views as laid down by Darwin in his "Descent of Man," and shows that more recent investigations have placed on a still firmer basis the doctrine known as sexual selection. The book is worth reading, and the author one who is in a position to speak authoritatively on the subject.

Surgical Diagnosis. A Manual for Practitioners of Medicine and Surgery. By Otto G. T. Kiliani, M.D., Surgeon to the German Hospital, Member of the New York Surgical Society, of the Surgical Society of Berlin, Germany, etc. Illustrated by fifty-nine full-page plates and by engravings in the text. New York: William Wood & Company. 1905.

The author remarks very aptly that the decision as to when surgical interference becomes advisable rests frequently with the physician who necessarily must lack, to a certain extent, the experience as a diagnostician acquired by the surgeon in his daily work.

It would be too much to say of this work that it is sufficiently full and explicit to satisfy the specialist. The aurist or oculist will scarcely come to a work of this kind for the detailed information which he requires and with which he has become familiar in the performance of his ordinary daily task. The same, probably, is true of the specialist in other lines. The general practitioner,

however, will find the great salient facts, which are the important ones in making a surgical diagnosis, very clearly set forth.

The arrangement of the book is also very helpful in these particulars, and essential distinctions being brought out by differences in type. The introductory chapter explains many terms that are necessarily employed in making careful examinations, but which frequently are not understood. It would have been advantageous if more comparative tables had been arranged to make clear the differential diagnosis between conditions that present features of marked similarity. These, however, are not by any means wanting in the work and such as are employed add greatly to the conciseness and effectiveness of the work.

It may be said that both in its mechanical execution and in the work done by its author that this is a most valuable addition to surgical literature and of special importance to those who have the whole field of medicine under their purview, but have had less opportunity to make themselves acquainted with the less frequent surgical diseases which they may be required to distinguish from others that are somewhat similar. B. E. M.

International Clinics. A quarterly of illustrated clinical lectures and especially prepared original articles on treatment, medicine, surveying, neurology, pediatrics, obstetrics, gynecology, orthopedics, pathology, dermatology, ophthalmology, otology, rhinology, laryngology, hygiene and other topics of interest to students and practitioners by leading members of the medical profession throughout the world. Edited by A. O. J. KELLY, A.M., M.D., Philadelphia, U.S.A.; with the collaboration of Wm. Osler, M.D., Baltimore; John H. Mussen, M.D., Philadelphia; James Stuart, M.D., Montreal; J. B. Murphy, M.D., Chicago; A. McPhedran, M.D., Toronto; Thomas M. Rotch, M.D., Boston; J. G. Clark, M.D., Philadelphia; Jas. J. Walsh, M.D., New York; J. W. Ballantyne, M.D., Edinburgh; John Harold, M.D., London; Edmund Landolt, M.D., Paris; Richard Kretz, M.D., Vienna; with regular correspondents in Montreal, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Vol. I., fifteenth series, 1905. Philadelphia and London: J. B. Lippincott Co. 1905.

The contributions to Vol. I of the fifteenth series are 21 in number, and include such names as Dr. J. Walter Carr, of the Royal Free Hospital, London; Dr. J. C. Bloodgood, of Johns Hopkins University; Dr. A. L. Benedict, of Buffalo, N.Y.; Dr. A. E. Gallant, of the New York School of Clinic l Medicine; Dr. Carstairs Douglas, of Glasgow, and others.

The book is divided into six chapters in all, vig., treatment, medicine, surgery, neurology and obstetrics, and last and most important, about 125 pages by Drs. A. A. Stevens, D. L. Edsall and J. C. Bloodgood, entitled "Progress of Medicine During 1904."

That section of the volume is certainly worth the price charged for the book. Dr. Stevens takes up all the advances made and new theories brought forward in the treatment of most of the infectious diseases, viz., typhoid, scarlet, diphtheria, small-pox, pneumonia, whooping-cough, tetanus, plague, syphilis, tuberculosis, rheumatism, etc. It also goes into treatment on diseases of the blood and of the ductless glands, of the circulatory system, kidneys, respiratory tract, digestive tract and nervous system. Dr. D. L. Edsall and W. B. Stanton treat of medicine and advances made in that department, whereas, Dr. J. C. Bloodgood, adheres to that of surgery. Vol. I is an auspicious opening for the fifteenth series of Clinics, which has become so deservedly popular.

An Introduction to Pharmacognosy. By SMITH ELY JELLIFFE, PH.D., M.D., Professor of Pharmacognosy and Instructor in Materia Medica and Therapeutics in the Columbia University (College of Physicians and Surgeons), New York. Octavo volume of 265 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto. 1904. Cloth, $2.50 net.

This introduction to Pharmacognosy is the first work published in this country dealing with the special individual anatomic characters of the different drugs, and it will be found of great service in enabling the student to recognize any drug in its crude condition. Dr. Jelliffe has laid special emphasis on the microscopic characteristics of drugs, not, however, neglecting the macroscopic appearances. He has also given considerable attention to the description of drug powders.

In the selection of the drugs studied in detail the author has shown great care, taking those which are most typical of the general drug structures, amply equipping the student of pharmacy to pursue individual research of a practical nature. The source of each drug is given, then the microscopic and macroscopic appearances, the chemistry, and the adulterations—an all-important factor in practical pharmacy.

The Sanitary Journal of the Provincial Board of Health of Ontario (Canada). Being the twenty-third annual report for the year 1904. Printed by order of the Legislative Assembly for Ontario.

The Provincial Board of Health announces that hereafter it will publish its annual report in four numbers, which will appear, as far as possible, in the months of March, June, September and December. These reports, bound in one volume, will constitute the annual report, of which the above mentioned report is the first exemplar.

In future the Monthly Bulletin will be discontinued, also the Report of the Executive Health Officers' Association, both being

printed in the *Sanitary Journal*, the papers read before the Association appearing as appendices, and continued throughout the year.

The laboratory reports will be prepared by Dr. J. A. Amyot, Bacteriologist of the Board. The editing and publication of the *Sanitary Journal* have been placed in the hands of the Chairman and Secretary.

Science and Immortality. By William Osler, M.D., F.R.S., Prof. Medicine, Johns Hopkins University. Boston and New York: Houghton, Mifflin & Company.

"The physician's work lies on the confines of the shadowland, and it might be expected that, if to any, to him would come glimpses that might make us less forlorn, when in the bitterness of loss we cry,—

> "'Ah, Christ!, that it were possible
> For one short hour to see
> The souls we loved, that they might tell us
> What and where they be!'"

Dr. Osler's lecture is of absorbing interest. He uses beautifully clear English in which to clothe his thoughts and dovetails in the opinions and expressions of stoics, materialists and poets in such a way as to add to the interest of his solution of the problem of the ages. He certainly confesses much; he denies nothing. Does he prove all things? Read and learn. W. A. Y.

A Manual of Practical Hygiene for Students, Physicians and Medical Officers. By Charles Harrington, M.D., Assistant Professor of Hygiene in the Medical School of Harvard University. Third Edition, Revised and Enlarged. Illustrated with twelve plates in colors and monochrome, and one hundred and eighteen engravings. Philadelphia and New York: Lea Brothers & Co. 1905.

A handsome octavo volume of 798 pages, giving in a clear, succinct form and in a pleasing, readable style the observations of a teacher of hygiene on Practical Hygiene. It deserves wide popularity among non-professional, as well as professional, readers. Dr Harrington evidently believes in presenting the newest and latest views on the subject to his readers, for it is but a short time since the second edition of his work was noticed in the medical press, and now we have the third edition.

It deals with Foods, Air, Soil, Water, Habitations, Disposal of Sewage, Garbage, Disinfectants and Disinfection, Military Hygiene, Tropical Hygiene, the Relations of Insects to Human Diseases, Hygiene of Occupation, Vital Statistics, Personal Hygiene, Infection, Susceptibility, Immunity, Vaccination and Small-pox, Quarantine and Disposal of the Dead. J. J. C.

A Text-Book of Legal Medicine. By Frank Winthrop Draper, A.M., M.D., Professor of Legal Medicine in Harvard University; Medical Examiner for the County of Suffolk, Massachusetts. Octavo volume of 573 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Co. 1905. Cloth, $4.00 net. Canadian agents: J. A. Carveth & Co., Limited, 434 Yonge St., Toronto.

Dr. Draper's "Text-Book of Legal Medicine" is undoubtedly modern, and contains most of the latest advances made in this subject. We cannot, however, think that there is much in it that is not contained in the books already on the market, though its handy size and simple style will attract many readers who find the average System too cumbersome and unwieldy.

The Thyroid and Parathyroid Glands. By Hubert Richardson, M.D., late Pathologist to Mount Hope Retreat; Pathologist to Maryland Asylum and Training School for Feeble-Minded Children; Demonstrator of Physiologic Chemistry, University of Maryland. With seventy-seven half-tone illustrations made from special drawings by F. P. Wightman. Pp. 261. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1905.

The author presents an extremely interesting and instructive monograph on this subject, and at present there is hardly any field which requires more careful attention from the profession than that of the diseases of the thyroid and parathyroids and their appropriate treatment.

At the outset the author deals with the historical facts regarding the development of our knowledge of the functional value of the ductless glands of the body and particularly with the suggestions which have been made from time to time to use different animal organs of this category as therapeutic agents for administration in disease. The anatomy of the thyroid and of the parathyroids and the physiology of these organs are discussed and a special chapter is devoted to the Chemistry of the Thyroid Gland. The succeeding chapters include a consideration of the subject under the following heads: Goitre, Surgery of the Thyroid Gland, the Thyroid in Infections Disease, Acute Thyroiditis, Syphilis of the Thyroid, Cretinism, Myxedematous Infantilism, Myxedema, Basedow's Disease, Thyroid Feeding in General Therapeutics, finally a bibliography and index.

The author's conclusions regarding the treatment of exophthalmic goitre (Basedow's Disease) are that "the medicinal treatment of Basedow's Disease has not so far proved very satisfactory, and the opinion of to-day is in favor of surgical interference." He adds that "many cases can, however, be improved and even cured by careful attention to details and by the intelligent use of drugs."

There are some excellent illustrations in the book, more particularly those illustrating myxedematous infantilism and cretinism. These pictures are themselves very instructive. In the treatment and clinical phenomena presented in these diseases the author has not given us a great deal of original matter, but he has compiled, in a most effective and thorough manner, an interesting summary of the whole subject, and we are indebted to him for a work which is of value as a most reliable guide to a knowledge of the subject as far as recent scientific investigation has developed it. A. P.

"*Modern Clinical Medicine.*"—D. Appleton & Company expect to publish at short intervals a translation of "Die Deutsche Klinik," a publication which is being brought out in parts in the German language. The articles upon the various diseases have been written by the most eminent men in Germany. Professors Leyden and Klemperer are the editors of the German work, and the articles are written by such well-known authorities as Leube, Ewald, Boas, Baginsky, Liebermeister, Eichhorst, Strumpell, Jurgenes, Ehrlich, Grawitz, Binz, Nothnagel, Gerhardt, Loeffler, Krafft-Ebing, Hoffa, Ortner, Kaposi, and many others whose names are as familiar to you as the above-mentioned It is the plan to publish this work in several volumes, the entire work to be translated and edited under the general supervision of Dr. Julius L. Salinger, of Philadelphia, Pa. Each volume in the series will have a special editor. The first volume of "Modern Clinical Medicine," "Infectious Diseases," will be published at once. This volume will be edited, with annotations, by Dr. J. C. Wilson, Professor of Medicine at the Jefferson Medical College, Philadelphia, Pa. The second volume, which will appear shortly after the first, will consist of "Constitutional Diseases and Diseases of the Blood."

"*Gray's Anatomy.*"—Messrs. Lea Brothers & Co. have pleasure in announcing a new edition of "Gray's Anatomy," to be published about midsummer, and embodying nearly two years of labor on the part of the editor, J. Chalmers DaCosta, M.D., of Philadelphia, and a corps of special assistants. Commensurately with the importance of the largest selling medical work ever published, this new edition will present a revision so thorough and searching that the entire book has been reset in new type. In addition to the changes necessary to bring it abreast of the most modern knowledge of its subject, several important alterations have been made with the view of adapting it still more closely to present-day teaching methods, and in fact to anticipate the trend of anatomical work and study. Thus, while the older nomenclature is used, the new names (B.N.A.) follow in brackets : the section on Embryology and Histology at the back of the present "Gray" has been distributed throughout the new edition in the shape of embryological,

histological and biological references and paragraphs bearing directly on the part under consideration, thus contributing to a better and easier understanding. The illustrations have come in for their full share of the general revision, so that at this writing more than 400 new and elaborate engravings in black and colors have been prepared. "Gray" has always been noted for its richness of illustration, but the new edition far exceeds anything that has hitherto been attempted. No medical text-book has ever approached "Gray" in sturdy longevity and accumulating strength. Notwithstanding the many would-be competitors who during nearly fifty years have periodically appeared and endeavored to share its ever-increasing popularity, this wonderful creation of a genius who lived barely long enough to realize that his work was done—how well he never knew—goes on and on, each succeeding year bringing new friends and strengthening the fealty of the old. The editor and publishers have spared neither labor nor expense to keep "Gray" at the forefront of anatomical knowledge, and there seems to be no reason to doubt that its next fifty years will pass as smoothly and as successfully as have those past.

Books and Pamphlets Received.

Laboratory of the Inland Revenue Department, Ottawa, Canada. Bulletin No. 101, Standard Fertilizers, 1905.

Reprint of original article, "Neurology and the Prevention of Insanity in the Poor." By D. Campbell Meyers, M.D., M.R.C.S. (Eng.), L.R.C.P. (Lond.), Neurologist to St. Michael's Hospital, Toronto.

Reprint of original article, "Neurasthenia in Some of its Relations to Insanity." By D. Campbell Meyers, M.D., M.R.C.S. (Eng.), L.R.C.P. (Lond.), Neurologist to St. Michael's Hospital. Reprinted from the Canadian Journal of Medicine and Surgery, Toronto, August, 1904.

"Thirty-fifth Annual Report of the Inspector of Prisons and Public Charities upon the Hospitals and Charities, etc. of the Province of Ontario." Being for the year ending 30th September, 1904. Printed by order of the Legislative Assembly of Ontario. Toronto: Printed and published by L. K. Cameron, Printer to the King's Most Excellent Majesty. 1905.

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Original Contributions.

SURGERY OF THE STOMACH FROM THE STANDPOINT OF THE CLINICIAN.*

A. J. OCHSNER, B.S., F.R.M.S., M.D.,

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THERE are many reasons why surgery of the stomach should be more and more interesting to the clinician. Chief among these is the fact that with the increasing clinical experience in this field, it has become possible to perfect the diagnosis of conditions far beyond the degree to which this could be done only a few years ago, when it was possible to actually confirm diagnoses anatomically only in those patients who could be subjected to an autopsy. In the vast majority of cases the diagnosis was made upon theoretical grounds. The patient was treated and improved temporarily; during a subsequent attack some other physician made the same or a different diagnosis, which again could not be proven anatomically, the difficulty arising from the fact that no one could prove or disprove the diagnosis in either case. The moment a case becomes surgical, however, this difficulty is abolished, because the diagnosis can and must be proven to be right or wrong.

There is much ante-mortem pathology in diseases of the stomach, as well as in diseases of all the other intra-abdominal organs, which can be studied properly neither post-mortem nor ante-mortem, unless the organ is exposed to view; and no sooner has this been done in a large series of cases than the diagnosis of the condition becomes much simpler and easier and gains greatly in certainty.

*Read before the Ontario Medical Association, June 6, 7, and 8, 1905.

Gastric Ulcer.—The condition which primarily or secondarily leads to the greatest amount of stomach surgery is the ulcer. The operation may be indicated, 1. Because of the painfulness of the ulcer; 2. In order to control (*a*) acute or (*b*) chronic hemorrhage: 3. In order to prevent secondary conditions such as (*a*) perforation; (*b*) peritoneal adhesions; (*c*) pyloric obstruction due to cicatricial contraction; (*d*) hour-glass stomach; (*e*) gastric dilation due to obstruction; (*f*) starvation; and last but not least, (*g*) implantation of carcinoma in the ulcer.

Diagnosis of Ulcer.—Since the presence of gastric ulcer primarily is the beginning of so many of the surgical conditions, it is important to recognize this lesion early in its development.

The most constant symptom in the presence of this lesion is pain. This is usually located below the tip of the sternum, is increased upon pressure, and upon taking food. The patient can usually tell which food will cause the pain to become severe. If the ulcer is on the posterior surface of the stomach the pain radiates into the back, usually to the left of the median line and up as high as the lower end of the scapula.

Very commonly the pain accompanying the presence of gall-stones is mistaken for the pain due to gastric ulcer, but it is usually not difficult to differentiate between these two, because the former is increased upon pressure at the point between the end of the ninth rib and the umbilicus, a point first located by Mayo Robson, while the latter is increased upon pressure in the median line.

Again, in case of gall-stones the pain in the back extends to the right at about the level of the tenth rib, while in gastric ulcer it is greatest in the median line or to the left of this and higher up.

The stomach contents are usually exceedingly acid in the presence of gastric ulcer, and there is an abundance of free hydrochloric acid present unless the ulcer has become carcinomatous. It should, however, be stated here that the chemical examination of stomach contents must always be looked upon only as of value in corroborating diagnosis, made as a result of a study of the history and physical examination. Robson and Graham have demonstrated this fact conclusively in a large series of carefully studied cases.

The history usually states that the patient has felt distress upon eating for a considerable period of time: that there has been eructation of acid stomach contents; that this is much more severe when certain articles of food have been taken; that the patient is much less uncomfortable when carefully following some diet which experience has taught him to select.

Quite frequently the feces are observed to be black from the presence of partly digested blood from slight gastric hemorrhages.

So many of the patients have, however, received subnitrate of bismuth as a remedy, or some form of iron, that care must be taken not to confound the effect of these remedies upon the color of the stools with that of hemorrhage from a gastric ulcer.

Frequently these hemorrhages have not been observed, but

still the loss of blood has been sufficient to cause a marked anemia, hence this condition must be considered in connection with the other symptoms and the history. In patients who are severely anemic and who are suffering from some form of gastric disturbance, one can usually demonstrate the loss of blood from chronic ulcer by a careful study of the case. Fuetter has demonstrated that by overcoming this anemia by careful dieting, many chronic ulcers will heal, which without especial attention to this feature seemed quite incurable under non-surgical treatment.

With careful internal and especially dietetic treatment, a vast majority of all cases of ulcer of the stomach which have been recognized early, can undoubtedly be healed permanently, if not only the immediate treatment, but also the after treatment is carried out carefully and conscientiously. That this can be actually expected in these cases has been shown in a large number of patients suffering from this condition.

But there are many of these cases which apparently recover only to relapse again and again. Many of these go from one physician to another, each time temporarily improving or recovering.

Robson has found that most cases which ultimately come to operation have been apparently cured a number of times and our observations fully confirm his report.

It is well to bear in mind this element of the history of any given case, because it should have a distinct bearing upon the choice of treatment in the future. Any case in which there has been a number of apparent cures with subsequent recurrence of the ulcer should properly receive surgical instead of medical treatment in the future.

Differential Diagnosis.—The most common condition which is mistaken for gastric ulcer is disease of the gall-bladder, especially gall-stones or sand. Next in order comes chronic appendicitis with acute exacerbation during which the pain is usually referred to the region of the umbilicus. In this case the pain is lower down than in gastric ulcer, and it is increased upon pressure in the region of the appendix near McBurney's point.

Renal Calculus.—Has been mistaken for gastric ulcer. In this case the urinalysis will usually clear up the diagnosis; moreover, the pain is increased upon pressure over the kidney, and radiates downward and inward along the course of the ureter.

Duodenal Ulcer.—It is only the fact that ulcer of the duodenum is not very common, which makes the occurrence of mistaking this condition for gastric ulcer somewhat infrequent. This condition has almost exactly the same symptoms as gastric ulcer, but the point of tenderness upon pressure is over the middle of the right rectus abdominus muscle above a transverse line drawn through the umbilicus.

Volvulus.—In rare cases volvulus of the jejunum may be mistaken for gastric ulcer, but the violent vomiting containing bile soon after intestinal contents, but no blood, makes the differential diagnosis relatively easy.

Neurasthenia.—It is often very difficult to make a differential diagnosis between gastric disturbances due to neurasthenia and those due to chronic ulcer. This is especially true, because not infrequently neurasthenia results from the suffering, anemia, and inanition which is caused by the presence of a chronic ulcer.

It is quite likely that for several years to come, quite a number of patients suffering from neurasthenia due to other causes will be subjected to stomach operations as a result of erroneous diagnosis.

Any other severe intra-abdominal condition like intussusception, ruptured ectopic gestation, ovarian cyst with twisted pedicle, peritoneal adhesions either septic or tuberculous, may be mistaken for gastric ulcer. In a few cases I have seen an interesting condition which gave rise to a mistaken diagnosis of gastric ulcer. In these cases the great omentum had become attached by its free margin to some point in the lower portion of the abdominal cavity, the tubes, ovaries, uterus, bladder, the cecum or the abdominal wall. The tension of the omentum upon the stomach gave rise to symptoms which could not be distinguished from gastric ulcer.

In a number of patients in whom we had made a diagnosis of gastric ulcer with pyloric obstruction and consequent dilatation of the stomach, we found the pylorus unusually open and the duodenum dilated to from 2 to 4 times its normal diameter down to a point below the entrance of the common duct. Upon exposing the jejunum this was found strongly contracted in these cases.

The lymph nodes near the duodenum in these cases were usually enlarged, indicating lesions of the mucous membranes lining the duodenum. In these the pancreas is usually also enlarged, and the gall-bladder is distended with bile together with mucus, sand or gall-stones, and frequently all of these substances are found in the same gall-bladder.

It seems reasonable to suppose that the obstruction at the point of entrance of the common duct into the duodenum or below the point must be primarily physiological in character, due to the irritation caused by the mucus, sand or small stones in the gall-bladder and duct.

The observations of Cannon and Blake which show that there is a physiological mixing process which takes place in the duodenum is extremely interesting in connection with this particular class of cases. Continued attention to these cases is likely to develop facts which will have great interest for the clinician.

Another condition of clinical interest has been observed in a considerable number of cases. It has been found that many cases of gastric ulcer have previously suffered from chronic, recurrent, or catarrhal appendicitis, usually with peritoneal adhesions to the appendix, or the cecum, or both, or with fecal concretions in the appendix; but always with some form of obstruction to the passage of gas. This pathological obstruction has resulted in a physiological obstruction to the passage of gastro-intestinal contents through the pylorus, and this in turn had been the exciting cause of the gastric ulcer.

Clinically one can usually follow a very interesting sequence in cases of gastric ulcer which do not end abruptly by perforation or fatal hemorrhage, or by what is probably less frequent in cases in which the ulcer is at all advanced, by permanent healing.

At this point, however, I believe that it is proper to express the opinion that it seems most likely that a very large number of small ulcers heal so perfectly that it is quite impossible to demonstrate their existence either ante-mortem or post-mortem, and that there are few cases which go beyond this initial stage without healing which will later heal permanently.

Vicious Circle in the Development of Gastric Ulcer.—It is not uncommon to observe the following history in the development of gastric ulcer:

1st. There is severe pain two to four cm. below the ensiform cartilage in the median line. This may be more severe directly after eating, or only after eating certain things, or it may be most severe when the stomach is empty, and may be relieved by taking food, but its location is quite constant and the pain is increased upon pressure at this point. There is at this point no dilatation present.

2nd. In attempting to protect the ulcerated surface against traumatism there is a physiological obstruction of the pyloric sphincter. This obstruction may be increased in two ways: (*a*) There may be developed an indurated edematous area due to the extension of the ulcer, or (*b*) as a result of the healing of the ulcer there may be formed a certain degree of cicatricial contraction which in itself will constitute an obstruction.

3rd. In order to overcome this obstruction the remaining portion of the stomach musculature will become hypertrophied.

4th. This is certain to be followed by muscular exhaustion and relaxation, and this will result in gastric dilatation.

5th. No sooner had this occurred, than the pyloric obstruction is still further increased by the fact that the lower margin of the greater curvature is depressed far below the level of the pylorus, and all of the food must not only be forced through the already obstructed pylorus, but it must also be elevated to the level of the latter aperture.

The fact that in the normal stomach every portion is drawn to a higher level than the pylorus, as the organ is forcing its contents into the intestine, has been shown very beautifully by Bettman, and more recently by Cannon.

6th. In the meantime, another condition has arisen which will prevent healing. The obstruction, together with the sacculation, gives rise to the accumulation of residual food in the dilated stomach, which undergoes decomposition in place of digestion. In this manner, all of the fresh food is vitiated by being mixed with the decomposed residual food remnants in the stomach. In this manner, each successive condition makes the previous state of things more grave. In the meantime, two other conditions have

arisen which will serve to prevent the tendency of healing in the ulcer.

7th. Almost immediately after the beginning of a gastric ulcer, a great amount of mucus is secreted, apparently to protect the diseased surface. This, however, causes the food to become coated, and this in turn interferes with gastric digestion. This condition is followed gradually by the secretion of an increased amount of hydrochloric acid, which is undoubtedly the physiological remedy for facilitating the digestion of food covered with mucus. With the increasing acidity of the stomach contents, the chances of healing of the ulcer is greatly reduced, and its extension is practically certain, hence each one of the conditions in turn becomes more and more exaggerated, and conditions go from bad to worse, unless a radical change is established whether by internal treatment, or if this prove ineffective, by surgical operation. I have had an opportunity to verify these clinical observations in a very large number of patients suffering from gastric ulcer, and they are in keeping with observations of most clinicians, who have studied such cases extensively. These facts would indicate the importance of careful treatment at the very beginning of gastric ulcer in order to secure complete healing before any of the secondary conditions have arisen, and also the necessity of eliminating all of the primary causes of the lesion in every individual case after healing has taken place, in order to prevent a possible recurrence.

This is especially important, because each successive attack is more difficult to relieve permanently. The chances for permanent relief are more and more reduced, because each time some lesion will remain, which must lessen the resistance of the tissues, or increase, at least, to a slight extent, the difficulty of emptying the stomach.

It is likely, that with proper after treatment, especially as regards diet and general hygiene, it would be possible to reduce the number of cases of recurrence to a great extent. This would reduce the number of cases, which now properly fall into the domain of the surgeon.

Fuetterer has written most effectively upon this phase of the subject, and I am confident it is worthy of our most serious attention. This is true, primarily, because it would permanently eliminate all of the many serious sequelæ, which are now so common.

All of this would indicate that surgery of the stomach begins where internal and dietetic treatment of disease of this organ fails to give permanent relief. It also indicates that surgery, in order to be of value, must result in local rest and in the drainage of irritating contents of the stomach, in all non-malignant cases, and in the early removal of the growth in malignant cases. It seems reasonable to suppose that the most careful attention to diagnosis of non-malignant cases, and the surgical treatment of that portion of those which cannot be relieved permanently by internal treatment, must result in a vast reduction of the number of malignant cases.

At the present time some form of gastro-enterostomy seems to have given the most satisfactory results. Robson pointed out the fact, most emphatically, that the anastomosis must be located actually, and not only theoretically, at the lowest point in the stomach, in order to be safe and effective, and leave the patient free from regurgitant vomiting

Theoretically, there seem to be many arguments in favor of a posterior gastro-enterostomy, but practically the results seem equally satisfactory, provided the opening is sufficiently large, and is in fact at the lowest point of the stomach.

A method has not yet been found, which completely satisfies all reasonable demands for performing gastro-enterostomy. I have had the time to look up only those of my cases of stomach surgery, which I have treated in the Augustana Hospital, hence I will speak only of these in this paper. But the methods and the results have been the same in the cases I have treated in other hospitals, hence this is of no material importance. The following table will give a convenient idea of these operations:

	Total.	Recovery.	Died.
1. Incomplete Gastrectomy	5	4	1
2. Pylorectomy	9	8	1
3. Gastro-enterostomy, Murphy Button—			
Malignant Cases	24	16	8
Non-malignant	10	9	1
4. Gastro-enterostomy, McGraw Ligature—			
Malignant Cases	22	16	6
Non-malignant	65	59	6
5. Gastro-enterostomy, other methods	12	10	2
6. Perforated Gastric Ulcer	10	2	8
7. Gastrostomy	4	2	2
8. Exploratory Laparotomy for Carcinoma of Stomach	32	24	8
Total	193		
9. Ulcer of Stomach, not operated	66	60	6
10. Carcinoma of Stomach, not operated	49	..	15

Patients returned to their homes unimproved, 34.

It will be seen from this that most of the operations were performed for the purpose of securing rest for the pyloric end of the stomach, and drainage for its cavity: also that gastro-enterostomy was performed oftener by means of the McGraw ligature than by any other means. This method has been more satisfactory in my hands than any other up to the present time. I still follow the original direction of the author of the method, which I published in the *Journal of the American Medical Association*, June 6th, 1903. It seems likely that all of the methods now in use will be displaced by some new method which will be more nearly ideal than any now in use.

So far nothing has been said concerning the treatment of any of the sequelæ, or the complications of gastric ulcer, because it is to be hoped that these will be eliminated to a great extent in the future, by the cure of the ulcer itself.

Complications.—The most common complications are perforation and hemorrhage.

Sequelæ.—The sequelæ are: (1) Chronic ulcer, (2) stricture of the pylorus, (3) gastric dilatation, (4) hour-glass stomach, (5) peritoneal adhesions, (6) inanition, (7) anemia, (8) neurasthenia resulting from the constant suffering, the malnutrition and the anemia, (9) carcinoma, and (10) jejunal ulcer following gastro-enterostomy.

Perforation.—The diagnosis of perforation is relatively simple. There is a history corresponding to that given for gastric ulcer above. During some exertion, the patient suddenly experiences severe pain in the region of the stomach. This is frequently attributed to the eating of a large meal, and may consequently be mistaken for acute gastritis. The pain becomes diffuse very suddenly. The patient is nauseated, and sometimes vomits blood or bile. The abdominal muscles become rigid, the patient is in a severely shocked condition.

The greatest point of tenderness is in the region in which tenderness existed previously. In many cases the liver dulness is obliterated to a greater or less extent, but it is not safe to place too much weight upon this symptom, because it frequently is present only after the perforation has existed for several hours, and if operation is postponed until this diagnosis can be confirmed by this symptom, the extent of the infection is usually so great that the operation cannot save the patient.

With two exceptions, all of my cases in this class were in this hopeless condition when they were admitted. The important point in connection with these cases is an early diagnosis and an immediate operation. The latter should consist in a free abdominal incision, careful sponging out of stomach contents that have escaped into the peritoneal cavity, closure of the wound in the stomach with Lembert sutures, preferable of silk or Pagenstecher thread. Drainage should always be used.

In cases in which the diagnosis is not made for 24 hours or longer after the perforation has taken place, it is difficult to state which course is the worst to pursue. In my own experience, all of the cases which came under my care in this advanced stage, which were operated, died within a few days, while a few which were not operated, recovered, the opening in the stomach being closed by a plug of omentum. In some of these cases a subphrenic abscess developed, later requiring an operation.

I am confident, however, that these cases were all somewhat less serious from the beginning than those which were operated and died: and it would consequently not be proper to attribute the recovery of the former to non-operative treatment, and the death of the latter to the operation.

It seems proper to advise an immediate operation in all cases of perforated gastric ulcer, in which an early diagnosis is made, and to use one's judgment in each individual case of perforation, in which the diagnosis is not made early.

Gastric Hemorrhage.—A few years ago there was quite a marked tendency toward the immediate operation for gastric hemorrhage. Mayo Robson's experience in this direction was so encouraging, that quite a number of surgeons favored operative treatment for this condition. It seems, however, that this is quite unnecessary, because in almost every case the hemorrhage will cease, and if the patient is carefully treated, her general condition can be greatly improved, so that the risk of the operation itself will be much less than when performed during a hemorrhage.

The treatment should consist in exclusive rectal feeding. It may be well to administer from two to four ounces of castor oil early in the treatment, and then to place nothing whatever in the stomach, until there has been no blood in the evacuations for several days. Feeding by mouth should be begun with great caution, and as soon as the patient's general condition is good, the operation should be performed.

Sequelæ.—In the treatment of the first three in the above list, (1) chronic ulcer, (2) stricture of pylorus, and (3) gastric dilatation, the method must be the same. It must consist of drainage of the stomach cavity by gastro-enterostomy, or in rare cases by Finney's pyloroplasty. The one point of greatest importance which must not be overlooked, is the choice of location for the opening in the stomach at its very lowest point.

Rodman's suggestion, advising the excision of the ulcer-bearing area in these cases, is undoubtedly worthy of consideration. In my own experience the results have been more satisfactory in cases in which I have excised the pylorus in connection with making a gastro-enterostomy, but as this adds another element of danger to the operation, it may be well to continue our observations, before making this a routine treatment in these cases.

In cases in which a pylorectomy is not made at the same time, the gastro-enterostomy opening is likely to become partly or completely obstructed by contraction, and this may be followed by a recurrence of the ulcer. In cases in which a pylorectomy has been made, this has never occurred in my experience.

At the present time the choice of operation must lie between the methods introduced by McGraw, that employed by Mikulicz, Moynihan's method, or the method developed by Robson-Murphy's oblong button; or Connel's suture method can be employed in connection with the methods of Mikulicz or Robson, but it seems likely that the button will continue to lose more and more of its old advocates while it is not likely to gain many new ones. This is true, especially, because with it the size of the opening is virtually limited, and there is a distinct objection in the minds of most surgeons against a non-absorbable foreign body.

The one great point in favor of the button is its ability to punch out an opening, and to leave the union between the stomach and the intestine with the slightest possible amount of connective tissue.

In order to be of any practical value this paper must point out some of the dangers to be avoided in surgery of the stomach.

Unnecessary Traumatism should be Avoided.—There is great danger in unnecessary manipulation, because this increases the shock and the tendency to infection.

In all of these cases much can be done to prevent this by making an ample abdominal incision. Much time is frequently occupied in finding the jejunum, resulting in useless handling of viscera. By simply lifting out the tranverse colon, and following its mesentery to a point a little to the left of the median line, one can always find the beginning of the jejunum in a few moments.

In gastrectomy and pylorectomy it is possible to reduce the manipulations to a minimum by simply grasping the four main arteries, and also the greater and lesser omenta between these four points, and then excising the intervening portion, which has been grasped by long-jawed forceps, in order to prevent leakage.

There is danger of necrosis of the stomach, if the gastric artery is injured, and of the transverse colon, if the middle colic artery is grasped in clamping the greater omentum.

In making a posterior gastro-enterostomy, there is danger of contraction of the opening in the mesocolon, unless the edges of this are sutured to the stomach.

There is always danger of angulation of the jejunum at its point of attachment to the stomach.

In all stomach operations it is well to have the patient placed in the sitting or semi-sitting posture, within a few hours after the operation, in order to prevent hypostatic pneumonia, and to facilitate drainage of the stomach by gravitation.

The greatest danger after operation comes from acute gastric dilatation, but this can be remedied readily by introducing the stomach tube. If gastric lavage is employed, it is, however, important not to introduce a sufficient amount of solution to do harm by pressure. Half a pint at a time is quite enough water to introduce. It is a rule with us to make use of gastric lavage, whenever any patient is distressed after an operation upon the stomach.

In three cases in which gastro-enterostomy had been performed for the relief of pyloric obstruction in my series of cases the progress was perfectly normal for 3, 5 and 8 days, when the patient suddenly began to suffer from dyspnea. This continued for 6 to 12 hours, when the patients died. In the first two, an autopsy was not permitted. In the third it demonstrated the fact that the patient had died as the result of acute gastric dilatation. .

We had previously had a number of similar experiences less severe in character, in which the dyspnea had subsided at once upon the use of gastric lavage, but it had not occurred to us that the distress was really due to acute gastric dilatation.

One would think it almost impossible for this condition to escape recognition, but the presence of the dressing over the abdomen, and

the fact that the distress is referred to the chest, is almost certain to lead one astray, unless one's attention has been directed especially to the possibility of the occurrence of this condition. We have since observed this acute gastric dilatation to a greater or less degree in a number of cases, and have always been able to obtain prompt relief by the use of the stomach tube. Aside from the gas one always finds decomposing mucus and usually some old blood.

It is well to bear this possible condition constantly in mind in the after treatment of these cases.

Feeding.—These patients should be given one ounce of one of the various predigested foods in three ounces of normal salt solution as a nutritive enema every four hours.

After the third day some of these predigested foods may be diluted in water and given by mouth, but the rectal feeding should be continued.

Later, broths and thin gruels may be given, but milk should not be given until quite late, as it is rather more likely to decompose than these predigested foods.

The patients may be permitted to chew steak, and to swallow the juice within a week after the operation.

RESECTION OF THE SPLENIC FLEXURE OF THE COLON, MALIGNANT DISEASE, WITH EXHIBITION OF PATIENT ANDSPECIMEN.*

BY INGERSOLL OLMSTED, M.B., HAMILTON.

This patient, Mrs. X——, was seen with Dr. Arnott, of Hamilton, on the 6th of March, 1904. He informed me that she had been taken suddenly ill three days previously with cramps in her abdomen, sickness of the stomach and vomiting. She had not had any movement of the bowels for three days before her attack. Her abdomen became distended, and, in spite of purgatives and high enemas, there was no free evacuation. She had had some fever, and increased frequency of pulse. When I saw her, she was much better, the bowels had moved freely and she said she was nearly well.

Her history, obtained, is as follows: With the exception of one sister, who died of a tumor of the womb, her family history is excellent.

She has had nearly every disease of childhood. She married, had two children, but no miscarriages. During the last 18 years she has been troubled with asthma. The menopause occurred in her 46th year, and was unaccompanied by any particular unpleasantness. She has always worked hard, has been a hearty eater, but was never troubled with any disturbance of the digestive tract till two years ago.

The present illness began quite suddenly in January, 1902. She awoke one morning with crampy pains in the abdomen, nausea and vomiting. The pains were felt especially around the navel and left hypochondriac region. There was some abdominal distension and constipation of the bowels. The bowels acted after a large enema had been given, and fresh blood was seen in the stool.

During the last two years she has had frequent attacks like the one described, which lasted from one or two hours to two and three days. Relief came as soon as the bowels moved, and almost invariably some fresh blood was found in the stools.

Two of these attacks were quite severe, one in Oct., 1903, which lasted about ten days, and another in January, 1904, which lasted two weeks. It was very difficult to get the bowels moved at that time, and she had considerable fever.

Between the attacks she would have about two stools daily, but at no time did she have a large, well-formed motion. When one of her attacks appeared, and enemas were given, small, hard fecal masses about the size of marbles came away. During the attack in January, 1904, Dr. Arnott felt a lump, about the size of a walnut, in the left side of the abdomen, between the last rib

*Read at the Ontario Medical Association, Toronto, June, 1905.

and the ilium. After the attack this lump could not be felt. Her weight had diminished about 30 lbs. during the last two years, and she has been almost free from her asthma.

She is a medium sized woman, fairly well nourished. The lungs are slightly emphysematous, heart sounds normal, arteries somewhat thickened and urine negative.

The abdomen is not distended and no peristaltic waves are visible. The liver has normal dimensions. On palpation, a lump about the size of a small orange is felt in the left flank, just under the edge of the ribs. It possessed very little mobility.

A diagnosis of cancer of the colon was made, and operation advised.

She entered the City hospital and was operated on, on the 12th of March, 1904.

Under ether anesthesia a long oblique incision was made, following the course of the fibres of the external oblique muscle, just to the inner side of the tumor. On opening the abdomen this tumor was found to be in the upper part of the descending colon and attached to the inner part of the transverse colon, the splenic flexure being free. The great omentum was attached to, and covered the inner side of the growth. No glandular involvement could be felt.

The mass, including the distal end of the transverse, splenic flexure and upper end of descending colon, was freed from its attachments, clamped off with Kocher's intestinal clamps and removed. The two divided ends of the bowel were brought together and an end-to-end anastomosis was made by means of sutures over a large Robson bone bobbin. The coats of the proximal portion of the bowel were very much hypertrophied. Three rows of sutures of fine black silk were used in making the anastomosis, and the omentum was also stitched over the junction line. The abdomen was closed without drainage.

There was very little shock following the operation, and convalescence was without incident.

She returned to her home at the end of three weeks, and has gained in health and weight ever since.

Strange to say, her asthma has returned, and now it is the only thing she complains of.

On opening the bowel and cutting through the tumor, the growth is found to almost completely close the lumen of the intestine, only a small opening, which would scarcely allow the passage of the small finger being left through the centre of the growth. The upper surface of the growth is ulcerated, and lying free in the bowel above this is a plum stone. This had evidently acted like a ball valve. The patient says she remembers having swallowed a plum stone the previous fall.

The tumor proved to be a cylindrical celled epithelioma.

Selected Articles.

THE FAMOUS "LONDON" HOSPITAL.

BY LALLY BERNARD.

On a cold, wet April day, it was not an alluring prospect which greeted us when we emerged from the underground station of the Metropolitan Railway at Whitechapel and caught our first glimpse of the immense facade of the great pile of buildings which cover nearly eight acres of ground, known as the "London Hospital," an enormous institution, where, since the day it was opened, the doors have never been closed for one hour, and where such a thing as a paying patient is unknown. We enter the wide-open gates, passed through an open court-yard, and under the immense porte-cochere, and found ourselves in the main hall of the building, where porters were engaged answering innumerable questions, and groups of young medical students stood chatting by the porter's offices. To the right a receiving room showed rows of benches arranged on the tesselated pavement, and a perfect army of men behind glass partitions was questioning applicants, who were either destined to find a place in the wards of the hospital or to pass on to the gigantic "out-patients'" hall to receive the advice or medicine which they sought. This was a lofty room, tiled to about sixteen feet above the level of the floor, lighted from the roof, warmed with hot water radiators, and admirably ventilated by means of air-ducts and fan. This beautiful hall cost £25,000, and it was built by money sent to Mr. Sydney Holland, the indefatigable chairman of the committee, by one who desired that his name should not be revealed. It was opened by the King and Queen in June, 1904, and when one considers that 13,000 patients pass through the hospital during the year, it is easy to imagine that this great clearing-house of sick and sorry men, women and children is of supreme importance in the working of that enormous institution. It is not so long ago that one heard harrowing tales of the experiences of the "out-patients," who sought relief at the great hospitals, of the hours of waiting, more often than enough in the open—mothers with ailing children, sometimes suffering from some contagious disease, and men who fainted from the strain of standing through those long hours of exhausting suspense, and it is comforting to know that the most wretched mortals from the east end of London find rest, light and warmth awaiting them before

the doctor's verdict is given. To the mind of the writer nothing spoke more forcibly of the excellent organization of the London hospital than the expeditious way in which this great mass of suffering humanity was sorted, according to individual needs. The secretary of the hospital, who took us over the building, said that the work of the receiving officers was one of supreme importance. They were qualified medical men, who are supposed to unite with their professional knowledge qualities which might be expected from a Sherlock Holmes and Bishop of London combined. In the out-patients' hall, sections were marked off by a signboard, bearing notices such as "New women patients," etc. The receiving officers have to use methods not necessarily conducted upon the usual lines common in charitable institutions. But were they to err in classing one genuine case of necessity as "fraud" the newspapers would instantly clamor for an investigation, while, on the other hand, were free medical advice given to a patient who might well be able to pay for it local practitioners would be up in arms. Off the great hall where the out-patients were gathered were offices for the different surgeons and doctors, six of the first named and eight of the latter who attend daily to the wants of the thousand or fifteen hundred applicants. Those who were given a prescription by the doctor took their bottles to the dispensary, where they received a shilling's worth of medicine for a few halfpence. In the great cellars of the hospital is the machinery, which turns out pills and cough lozenges by the ton, and here are also the supplies for the dispensary and the enormous supplies which are necessary for the operating theatres and the surgical wards, etc. The requirements of the hospital necessitate 3,500,000 pills and tabloids per annum. During 1903 six tons of cotton wool, 130 miles of bandages and 90 miles of lint were used, while the total length of the material expanded in surgical stitches and ligatures amounted to between 29 and 30 miles. So one can easily imagine that in the effort to reduce the expenditure per bed, wholesome supplies of every kind are necessary. During the past few years the hospital has been to all intents and purposes rebuilt, and the work is still in progress, while iron buildings for temporary use are at present full of beds. Two storeys have been built on to the main wings and a splendidly equipped suite of five operating theatres, with rooms for the administering of anesthetics adjoining, and sterilizing chambers have been added, and the whole building has been coupled up with an internal telephone exchange: the staircases have been refashioned and two immense lifts built in addition to the three or four formerly in existence.

The hospital has room for 800 patients—on the morning of the day of our visit there were 740 patients in the wards—a staff of 700 men and women administer to the wants of these, the most wretched class to be found in London, for out of the 13,000 admitted in one year nearly two-thirds came from within a two-mile radius of the hospital. And this is the centre of "Darkest

London." Now, what of the men and women who minister to the needs of these suffering mortals? One might spend many days in that great hospital and never come in direct contact with the whole 700, but when one passes through wards without number, through operating theatres where the attendants are busily engaged in arranging for an operation just about to take place, or cleaning the theatre just after the operation has taken place, through the sterilizing rooms, the kitchens and the endless departments which constitute this great hospital, one cannot help receiving a general impression of the "human machinery" which keeps this great work moving, and this impression, I am bound to say, was a satisfactory one. The selection and supervision of people who are to hold in their hands what is really the power almost of life and death require a peculiar penetration and instinctive genius. The man who is at work in the sterilizing room, preparing the marine sponges which are soon to be put into a sealed flask containing a strong antiseptic, and will only be removed by the surgeon who breaks the seal; this man by carelessness or callousness may defeat the skilful surgery of the most famous doctors in Europe to-day. No matter what the sum spent on costly operating chambers, on the latest machinery, on all the thousand and one scientific apparatus, the fidelity and intelligence of the human species are required if good results are to be obtained.

"Ninety-eight per cent. of our surgical cases heal by first intention," is the statement of Mr. Morris, the secretary, and that means that these poor bread-winners whom fate takes into the hospital are discharged sound and well in nineteen days instead of two or three months, as in days gone by. It is very wonderful, for it means that seven hundred people, exclusive of the medical staff, are united in one common bond fighting against disease and death.

Second in interest to the writer were the kitchen arrangements, and for this reason we were taken almost directly from the receiving room and the out-patients' department in a giant elevator—one of several, large enough to carry a bed—to the top of the building, where the new kitchens are situated. Surely a triumph of sanitary ingenuity is this department, and an impossible theatre for wilful waste. Here are men in snowy-white overalls, busily engaged in cleansing the giant roasting ovens; tesselated floors again, shining tiles and light and air everywhere. Never an odor of greasy tins or stale food; electricity, steam and gas, all pressed into the service, to insure the maximum of results with the minimum of labor and expense. Everything spick and span, the kitchen might be converted into an operating theatre without danger to the patient, so perfect is the standard of "surgical cleanliness" observable. All the supplies for the larder and store rooms are brought to the chef from an outside lift, which has no connection with the other portion of the hospital. Everything is carved for the patients in this kitchen. Skilfully devised tin boxes, with

separate drawers lined with enamel, stand on hot water tables; each box bears the name of its particular ward, and the contents are arranged according to the diet chart sent up by each nurse for every individual patient, and carried out according to the doctor's orders in the first place. At meal times immense trucks are lined up on one side of the kitchen, in charge of the special ward porters; at a given signal they are wheeled into the elevators, and in three minutes are deposited in the ante-room off each ward, where hot plates are in readiness, and in less than five minutes each patient has his meal placed before him. Yet, strange to say, in spite of this almost military precision, there is nothing of "barrack-like" atmosphere in the wards. We were fortunate enough to be taken through the majority of the wards after visiting hours, when the patients who were well enough, were gathered about the great open, tiled fireplaces in the centre of the wards, which are bright with flowers and plants. The "Teale" slow combustion grates give out an immense heat, and no other form of heating is necessary.

"The item for scrubbing and cleaning this hospital alone is over six hundred pounds a year," the committee grumble. "But one cannot have it done for less," said one of the officials. "This includes the nightly cleaning of the receiving rooms and the out-patients' hall. It means that boiling water has to be provided; that electric light has to be kept going, and, as the hospital has never been closed day or night since it was opened, you can imagine what the task of cleaning means." Yes, one could imagine it. Soft soap, mops and cloths, the official mentioned with an absolute confidence in the prescription for old-fashioned cleanliness, but in the numberless operating theatres, tiled, tesselated, with no corners, but curves everywhere, there is a piece of hose attached to a brilliantly polished bit of brass piping, and when these rooms are cleansed the steam is turned on. Later an electric fan is put in motion, and the steam sucked out through an open duct, which is, I believe, protected from the outer air by a layer of cotton wool, which acts as a filter, and is frequently changed. One could listen for hours to the precautions taken to render everything that is used in the operating theatres antiseptic, so that wounds will heal by "first intention," and the fascination of such recitals lies in the precision with which the human mind must cover the ground of "all important trifles." There was the sterilizing room, with the enormous steam sterilizer at work, where trays of white enamel, which held the instruments used in the last of the thirty-eight operations performed that day, were boiling in seething tanks of water, and would continue to be boiled for an hour to come.

"Boiling water comes first, steam second, and only the articles which will not stand boiling are steamed," we were told. Up to the beautiful room, full of daylight, which came through open windows, as well as the brilliant Finsen burners, where a score of patients—mostly women—were being treated by the nurses

for the dreadful disease known as lupus, which eats away the human face and body. Here was the light presented by Queen Alexandra when Princess of Wales, and painted above the apparatus presented by her were her own words: "Nothing like perseverance." The nurses, who were seated treating their patients, all looked as if the work on which they were engaged had no suggestion of terror or fatigue for them. They chatted away with their patients, who during the course of treatment feel no discomfort. But the nurses are only allowed to spend three months at a time in this department, for all these "light" cures appear to exhaust the vitality of those who administer them. The reason of this has not as yet been ascertained, but it is the same with the men who manipulate the X-rays. The cures made by the Finsen light treatment are extraordinary. We were shown those terrible photographs of "before and after," the "after" in more than one case meaning the patient leaving the hospital with a new nose so skilfully adjusted that without spectacles one could not detect the artificial feature. One man had come all the way from the West Indies, and a single treatment had sufficed to cure the disease, which had been taken in an early stage. As a rule there are two women to every man patient admitted to this department. In one corner of the room a healthy-looking young girl was having a birth mark known as "port wine" stain gradually removed from her face, and the sister in charge told me that they had been most successful in removing moles and excrescences from the human face by means of the light. On into the room where the man in charge of the X-rays had just adjusted under the light a young lad, whose ankle was to be photographed, with a view to seeing if there was a fracture or severe sprain hidden by the fearfully swollen flesh and tissue.

Then a peep into the "high frequency" chamber, all in darkness save for the flashes of violet light, where a patient was being treated for some nervous disease. There was no time to see the Training School for Nurses, which is one of "the" features of the London, or the great laundry, where 25,000 "pieces" are tured out each week. We pass through the children's ward. Alas! many of these small mites were mentally as well as physically afflicted. Atoms of suffering humanity, attended by splendid healthy young women, and piteous sights, raised that so often suppressed note of interrogation in one's mind: "Why? Ah, why is it permitted?" Only a few days before the hospital had lost one of its most brilliant young house surgeons, who had bent over a wretched, deformed, imbecile "runt" of a child, brought to the hospital suffering from diphtheria. The child coughed in his face. In two days, in spite of all that could be done, the young doctor and the child both lay dead in the mortuary chapel.

One has a good chance to study the question of the alien population of the East End at the London Hospital. Here are two Hebrew wards, where the patients have a separate kitchen pro-

vided, and their food cooked by a Hebrew according to the rights of their religion. A separate set of dishes and utensils are kept for use during the feast of the Passover, and a tiny roll of parchment is fastened to the lintel of the door in the ward. Not many Hebrew women are to be found among the nurses; they are said to be too excitable and emotional as a general rule to stand the work.

Now for a visit to the famous bacteriologist, Dr. Bulloch, a pupil of Koch's. We found the young Scotch doctor in his sanctum, where he has a veritable miniature "zoo" of bottled microbes. One must, however, according to Dr. Bulloch's latest theory in regard to the tubercule bacilli, no longer talk of the deadly microbe. Their deadliness consists in the "refuse" which they produce. Since the day of Koch's famous dicovery of the tubercule bacillus there has been a new discovery. The white corpucles which are supposed to consume the tubercule bacilli will not perform their particular function unless these microbes are coated with what is called "Opsonins," a word derived from the Greek term, which means "to make tasty." Opsonin is the matter found in the fluid of a healthy person, and if the bacilli gain access to the system of a person in good condition the white corpucles devour the palatable opsonin-enveloped bacilli, but where the weakling absorbs the tubercule bacillus there is not enough "sauce" to make it a palatable morsel for the white corpucle. So the present theory which Dr. Bulloch advances is the introduction of a lymph, which directly and almost instantly increases the accumulation of "opsonin" in the blood, and he believes that the open-air treatment is the necessary adjunct to perfect this "cure." We listened with great interest to Dr. Bulloch explaining how he had tested the blood of a girl suffering from lupus, and had found that her blood contained the necessary amount of opsonin, but that it was not circulating properly through the affected parts. Poulticing was tried, and by this means circulation of healthy blood re-established, and a marvellous cure was the result. All this was intensely interesting, and it was hard to tear ourselves away from the doctor's room, where we listened to the account of the wonderful effects of antitoxin in cases of diphtheria, and how it rendered people immune from the danger of catching the dread disease, when administered as a preventive of the mysterious germ which causes the dread "lockjaw" or tetanus, and the work of the bacteriologist in battling with it, but we had to go, for the shadows of evening were creeping into the greyness of the rainy day. Just as we approached the great entrance hall a police ambulance was wheeled up, and the shrunken figure of a man whose head was swathed in bandages was carried into a private receiving room, where accidents were set apart. We waited for the fraction of time which was necessary to let this sad little cortege pass. "What was it?" we asked the stalwart policeman preparing to take the ambulance back to its station. "Tried to cut 'is throat," was the laconic

answer. Would the great hospital insure more than the healing of the "open wound" for that poor shrunken body which encased an immortal soul and human heart? was the question which would obtrude itself as the train carried us through the darkness away from that institution which presents all that is best in human endeavor in this great grey world called London.—*Toronto Globe.*

SUNDOWN JOURNALISM.*

BY T. D. CROTHERS, M.D., HARTFORD, CONN.,
Editor *Journal of Inebriety.*

Institutions organized to give medical lectures and instruction only in the evening are called "sundown colleges." The supposition is that a number of young men who are busily occupied during the day with other work are unable to take up medical studies until after sundown, or in the evening. It is claimed that limited means and urgent duties prevent them from studying medicine at any other time; hence this teaching is secondary, and is a form of by-product instruction, after the stress and strains of the day.

I have used this term to describe some of the peculiarities and eccentricities which appear in journals and journalistic work —the simplest explanation of which is sundown work, or work done when the brain and body are debilitated and below par from the strains and labors of the day. Scientific work in medical journals or elsewhere is rarely demanded under stress and strain, or should be consigned to sundown periods, when the brain is debilitated from other duties and is less clear and vigorous. Critical readers of medical journals are frequently surprised at the wide variation in the quality, style and tone of the work presented. The editorials differ widely and the point of view often changes, and the thought is sometimes harsh, discordant, or vague and confused. Credulity and scepticism alternate so rapidly as to confuse the reader. While the editor is known to be a man of excellent judgment and careful in his conclusions, the editorial work fails to confirm this estimate of his ability. The inference is that this is the work of other authors, and my plea last year before this Association to have all editorial matter signed, was to enable the reader to clear up this mystery. While journals, like individuals, have frailties, and editors have distinct personalities, the reader is distressed when these peculiarities change rapidly, and become confused and hysterical, and move on unusual zigzag lines. The real pleasure to the reader of a journal

*Read before the Medical Editors' Association at Atlantic City, June 6, 1904.

is to know and respect the author's consistency, good judgment and uniform impressions of the changing conceptions of science. When he fails in this, evidently some clouds have come into the horizon and broken up the usual order of events—one explanation of which would be sundown journalism—work done under unfavorable conditions, forced work, in which tobacco, coffee, tea, whiskey, morphine are appealed to for help. Editorial comments on matters of which we know the author's familiarity which fall so far below the usual levels of good sense and clearness of expression, must be attributed to this source.

During the past year, many of the contributed articles on consumption have brought out distinct ear-marks and foot-prints of sundown thinking and working. Evidently some of these papers were written by persons suffering from this disease, with its peculiar delusions, and mental twists, largely influenced by the time of writing and the form of drugs used. Ofter papers on appendicitis have a markedly sundown movement, with a confused exhaustive tone. Such writers are working at night, suffering from fatigue, strain and exhaustion, following the operations and other work which they have performed.

Most of the great weeklies, and some of the monthly journals, contain many marked exampes of sundown contributions, noted in the jarry, exclamatory style from the effects of alcohol, or the softer notes and the assertive confidence in which conclusions are stated under the influence of morphine. The cocainist influence in these contributions is more pronounced than that of any other drug, particularly in the endless repetitions and explanations involved, and movement in a dreamy, hazy mass of words.

The query is often made why all this mass of journalistic work coming from the press every week and month should be so ephemeral and valueless. The evident explanation of some of it is sundown writing, stimulated by drugs, and efforts to work the body and brain at a time when rest is required.

The same errors appear in books. Often a clear, vigorous medical teacher, whose work in the class-room is stimulating, will write a book that utterly fails to sustain his reputation. The impression in the class-room as a teacher is broken up by the halting, obscure, non-stimulating, expressionless work in the volume. Reviewers are disappointed in the text-books of eminent practitioners and teachers, that fail to present the best thought and conclusions, and practically are nothing but involved literary patch-work, lacking in form, shape and vigor. The critic is conscious that the author has given only a weak production of what he could have done; hence his praise is formal and mechanical. One of the popular text-books on the market is notoriously a midnight work, stimulated by opium and cocaine; another text-book

with a large sale has drug writing and drug work on every page, and the so-called brilliant passages are followed by vague statements so marked that the exact drug used can almost be pointed out.

Frequently some eminent physician in active practice will deliver an address as president or orator for some occasion, and the expectations of his friends will be greatly disappointed. The vigorous, clear-headed man when seen in print appears as a vague, sophomoric thinker, confused in range of thought, jarring in style and seldom rising to the time and occasion. Often the effort to be strictly scientific appears most prominent by following other authors and restating their conclusions from different points of view, dove-tailed with his own opinions, and all covered with an air of mystery and technical words.

Lectures, essays and pamphlets which conclude with enormous bibliography, convey the impression and expectancy of an exhaustive effort; yet, when critically examined, the sundown flavor and general feebleness of work is apparent. German literature is very often marred by these posing effects of bibliography following commonplace writing on well-known subjects, mixed up with excessive technicalities and sentences so involved that the author's meaning is never clear.

Editors are always troubled with contributions from influential, active medical men, whose writings are mere by-products and feeble sundown efforts. Their standing in the community and reputation often makes it difficult to refuse such work, and yet the editor knows that it is mere stuff and fustian, and often without the merit of style and culture. The only objection that can be offered is that the columns are crowded and his stock of supplies exceeds the demand for a long time to come, and this is literally true of this class of work. I have come in contact with many medical men, noted as voluminous writers, who are, or have been, disabled from the use of spirits and drugs. They usually suffer from insomnia, and take to writing midnight articles that reflect accurately their exact mental condition. Some of these writers, after varied experience as journal contributors, become book authors. It is needless to add that the paranoic brain, influenced by beer, alcohol and drugs, appears more or less prominently in all their work. Foreign medical literature, both in journals and books, often exhibits the same marked traits, the same banquet twist, the same wine and beer coloring, and the same midnight work often unmistakably. While the range of thought is less versatile and vigorous, it always excels in stupid conservatism and technical minutiæ.

To all careful observers, the examples of this kind of work apparent in general literature will be surprising. Magazines and

articles and books present many illustrations of midnight work done under the influence of alcohol, morphine and cocaine. A book having a large sale, and admired by many persons, was written by one using cocaine. The plots, the mystical style and the range of thought and other indications are conclusive. It is surprising to note how exactly the writer, both in scientific and general literature, unconsciously and exactly describes his mental health and condition in his writings.

As editors and writers, we may not always be able to make wise discriminations of the contributions offered, or determine the real value of scientific writing, but personally we can avoid sundown work and midnight thinking, and thus cultivate sharper eyes and clearer brains in detecting the movement and direction of scientific progress. An article recently published by a very clever critic and medical man claims that much of the literature of to-day can be aptly characterized as the direct products of coffee, beer, wine, spirits and compounds of opium and cocaine. There can be no doubt this is true to some extent. We all realize that no one can think or write clearly on any subject with a weary brain, or one forced into service by drugs. It is difficult to understand how a medical man can expect, after the labors and duties of the day, to retire to his office at night and do any good, scientific, literary work. Medicine and literature in any form or direction to be successful requires the clearest thought and the best energies under the most favorable circumstances.

Journals, editors and authors can never bring out forced sundown products and become successful workers. Journals die of neglect and dementia, simply because they are the products of fatigue and forced, unnatural efforts. Editors become marasmic and disappear, because their best energies and efforts have been diverted in other directions, and their literary work is only by-products. Authors pose for a little time and then are forgotten, because they had no message and no thought to communicate. What they said was thought after sundown in an atmosphere of tobacco, coffee, spirits and drugs. In all this there was mental and physical starvation, acute mental poverty, with consequent confusion of thought and purpose. I repeat what I have said before—that these obvious conditions explain much of the failures in journalism and literary and scientific efforts by medical men. The surgeon, the neurologist and the active practitioner in any department of medicine can never write lectures, learned essays, or clear editorials after sundown. Such work must be done in the morning, under the very best conditions and favorable circumstances for clear thinking and exact writing. Dictating to a stenographer after dark, when the duties of the day are ended, carries with it a distinct impression which critical readers do

not fail to discover. Sundown books, sundown authors and sundown journals ought to disappear, and will do so in the near future. When journals appear to meet a real demand, and editors understand the conscious and unconscious' claims of scientific medicine, and authors feel that they have a real message and group of facts to communicate, then the mediocrity of medical and particular journalistic literature will pass away.

MECHANICAL RESTRAINT AND SECLUSION OF THE INSANE.

Dr. Charles W. Page, Superintendent of the Danvers Hospital of Massachusetts, U.S.A., read an article on this subject at the Conference of the State Board of Insanity in Boston, at their meeting in May last. The article is published in full in the *Boston Medical and Surgical Journal* of Dec. 1st, 1904, and reviews the whole subject from the time when Pinel did away with restraint in the Bicetre, at the time of the French Revolution, to the present day.

He explains the work done by Wm. Tuke, at York Retreat, and Dr. John Conolly, at Hanwell, in this respect, and quotes the following from this last writer: "After five years' experience, I have no hesitation in recording my opinion that with a well-constituted governing body, animated by philanthropy, directed by intelligence, and acting by means of proper officers, there is no asylum in the world, in which all mechanical restraint may not be abolished, not only with safety, but with incalculable advantage."

We here quote Dr. Page in part:

"At Danvers mechanical restraint was abolished about four years earlier in the women's than in the men's wards, not because women patients are less difficult to manage, but for the reasons that an arbitrary position on this question was not assumed by the superintendent at first, and because the assistant physicians and supervisors in the women's department were especially responsive to suggestions in this direction. Eventually, when non-restraint had permeated the whole hospital, and when the chief assistant, who had been gradually convinced of the feasibility of non-restraint against his pre-conceived but honest convictions, remarked in answer to some statement of fact, which was made one day, 'Oh, it's a comparatively easy matter to avoid mechanical restraint now because we don't have the cases that require it as we formerly did,' then and there, the superintendent took occasion to point out that he had discovered exactly what every man

brought into intimate association with non-restraint had discovered, namely, that non-restraint once established in an institution, conditions which formerly suggested its use rarely if ever occur; that, as institution after institution had been placed on the non-restraint basis, there had been a continuous, successive rediscovery of the same altered internal conditions, from the days of Conolly to the present time, a period of some fifty years. Such being the fact, it must be admitted that this less fractious, less turbulent condition of the insane in the wards of the hospitals was always the outcome of non-restraint and never the forerunner.

"This discloses the real solution of the controversy. Where restraint is permitted, the general spirit of the management breathes coercion, antagonism, enforced submission. When non-restraint is the undeviating rule, tact, persuasion and sympathy soften and mellow every act towards the inmates. The employment of mechanical restraint gives the attendants a wrong sense of their personal power over patients, such a physical advantage that they instinctively incline to self-assertion; to issue peremptory commands; to use ill-considered, irritating speech; to give curt answers; to make threats; in short, to attempt to intimidate all but the most quiet patients. 'Do this, or so, or you will be sent back to the wards, you will be secluded, or you will be put in a strait-jacket,' is the natural style of speech adopted by attendants when threats and penalties are at their command. Having thus threatened a penalty, the average uninstructed attendant concludes that proper hospital discipline demands its infliction unless the excited, frightened patient meekly capitulates, a result one could hardly expect with a sane person, much less with a deranged, apprehensive lunatic. Even well-meaning attendants naturally fall into such errors unless carefully drilled and faithfully watched. Fresh recruits are constantly entering the nursing service, and only by individual work with them can the highest ideals of a qualified nurse be instilled into their minds.

. . . . . .

"Perhaps I speak with assurance, but I worked out this problem at Danvers, where mechanical restraint was abolished deliberately. As has been stated, its use was discontinued in the female wards four or five years before it was wholly given up in the male department.

. . . . . .

"The beneficial effects thus ensuing, when considered in the aggregate, are of such magnitude, I am resolved that the non-restraint rule shall not be broken except as a last resort, as a

life-saving measure. Since that time, I have been responsible for the custody and treatment of more than six thousand insane persons, not one of whom was restrained with mechanical appliances by my orders or without my knowledge.

. . . . . .

"The argument against mechanical restraint applies in large measure to seclusion of the insane. While seclusion is, in some degree, less demoralizing in its effects or its influence upon the nursing staff of an institution, only in rare and exceptional cases can its employment be remedial or beneficial. If, as Conolly said, 'Restraint is Neglect,' it is doubly true that seclusion is neglect. If used, it should never be prolonged. As a rule, thirty minutes' seclusion is worth, as a corrective measure, more than twenty-four hours of the same treatment. Next to execution, solitary confinement is the severest doom that legal tribunals can pronounce upon hardened criminals. Solitary confinement is universally considered to be painfully trying to a sane mind. How can it be improving to a deranged man, shut away from associations with human beings, incapable of comprehending the logic of his position, consumed by delusions or burning with revengeful indignation towards the authors of his imaginary wrongs?

"Can all the insane be managed without restraint or seclusion? Conolly always said, 'Yes,' to that question. When, after consulting with him, superintendents of other institutions remarked that they would return home and try non-restraint in their asylums, he would coolly reply, 'You will succeed if you are in earnest.' Some Continental hospital officials were well-nigh exasperated by Conolly's calm, significant, qualified prediction, 'You will succeed if you are in earnest.' He had been in earnest. In order to attain his ends at Hanwell, he had devoted a surprising amount of personal attention to each trying, difficult patient, visiting such both by day and night, watching the conduct of attendants towards such cases with unceasing vigilance."

Dr. Page measures the capacity of a nurse, or a superintendent as Conolly did. If a superintendent or a nurse on a fair, earnest trial finds that he or she is not able to manage the insane patient without resort to mechanical restraint, it demonstrates beyond doubt or cavil the incompetency of each, and such a nurse should be at once dismissed and a superintendent should recognize his incompetency. The governing board should put a man in his place who could do so and he seek a field where he could fill the duties of his place.

It will be remembered that Dr. Henry Maudsley married the daughter of Dr. Conolly and came under the influence of this splendid man as to the management of the insane, which will

explain why he has been such a staunch adherent of the doctrine and gospel of love in the management of the insane which was at the bottom and was the corner stone of Wm. Tuke and John Conolly's success in turning the current in English asylums at the end of the eighteenth and of the nineteenth century into the courses Dr. Page defines and illuminates.

Dr. Page continues:

"I formerly permitted the use of restraining apparatus upon patients, endeavoring to limit its use to rare and exceptional cases. While working under this policy, I not only found it difficult to decide upon cases, and to convince the nurses that restraint was seldom necessary, but every exception in favor of mechanical restraint seemed to weaken the courage and resolution of the nurses, as well as to diminish my influence and control over them. Then, too, as long as nurses understood that straps and jackets could be employed as final measures, they not only relinquished mild efforts too quickly, but were inclined to assume a dictatorial, aggressive manner towards patients upon slight occasions; and this spirit of coercion as evinced by the nurse in his or her attitude towards the patient was, according to my observation, the starting point of the trouble with refractory patients in the great majority of cases.

"Now that mechanical restraint is discarded, the nurses understand that they will be regarded as incompetent unless they can manage the patients in their charge without resort to violent measures, seclusion and restraint. Intelligent nurses do not complain of such restrictions. They appear ambitious to demonstrate that a trained nurse can manage the insane without the fetters and instruments which are relied upon in such cases by the unprofessional keeper. Certainly, the non-restraint rule has advanced a kindly, humane spirit in our wards as no other measures could have done. Nurses have no temptation nor power to control patients by threats of punishment. Under such conditions, whatever native tact, art and persuasive powers the nurse may possess are rapidly developed; and, as a result, more sympathetic, friendly relations are early established between nurse and patient, and the common annoyances and irritations formerly experienced by both parties are largely avoided."

He concludes as follows:

"Nurses who possess self-poise, capacity for tact, and power to rapidly conceive expedients will naturally succeed. I have seen slender, light-weight girls manage the hardest wards quite as well as those of large stature. As an aid towards the development of such nurses at Danvers, each ward is supplied with special report slips to be used according to directions printed on each slip, viz.: 'When a patient escapes; attempts to escape;

receives an injury, accidentally or otherwise; has to be handled with force, or is secluded: the attendant engaged in the affair, or the one in charge of the patient at the time, must send a written report to the medical officer in charge of the ward in which the patient belongs, who will countersign the same and forward it to the office of the superintendent.' At a convenient time, the patients thus reported are visited by the superintendent with the slip in hand, when such personal investigation and instructions as may seem necessary can be given.

"Being in earnest is the solution of the non-restraint question. The ruling authority over and above the nursing staff must be in earnest; and this signifies clear insight as to the evil and its remedy: certainly as to what can be done with the insane by virtue of patience, sympathy and tact; with determination, watchfulness, faith and enthusiasm."

SURGICAL CORRECTION OF HAIR LIP AND CLEFT PALATE.

The *Journal of the American Medical Association*, March 18th, 1905, contains an article by G. V. I. Brown, A.B., D.D.S., M.D., C.M., entitled "A System for the Surgical Correction of Hair Lip and Cleft Palate," in which the author describes a method of treatment, accompanied by illustrations and the histories of a large number of successfully treated cases. In his conclusions he says:

"It is too often taken for granted that more or less sloughing and pus formation must follow extensive mouth operations, and that surgical asepsis is impossible. In a sense, this must be admitted to be true, owing to natural anatomic obstacles to complete sterilization and the constant exposure to infection from so many sources, but notwithstanding all this, most gratifying results can be secured, and so nearly a true primary union obtained as to make its essential benefit the same even with extensive wound surfaces. With the periosteum stripped from the palate surfaces; incisions reducing circulation to the farthest safe limit; nasal secretions above in contact with raw surfaces; mouth secretions below, mixed, as often occurs, with gastric regurgitations, and vomited matter; only a comparatively thin veil of tissue bridging the space of the palatal separation of the bones, and at the velum, exposed to destructive influences at every movement of the tongue, or act of swallowing, it goes without saying that only the most rigid adherence to antiseptic surgical care could be effective.

"Strong solutions of poisonous, or tissue destructive, germicidal agents are necessarily precluded in the mouth. Dilution in the oral fluids renders otherwise effective solutions of practically no benefit. The histologic character of the nasal, oral and pharyngeal mucous membrane surfaces renders sterilization extremely difficult, and it has been conclusively proven, that animal fats, dead mucous cells and other surface coatings resist even powerful drugs to such an extent as to protect underlying bacteria, while germs on the immediate surface are destroyed. Mechanical cleansing, therefore, is a first necessity, and next to this, frequent use of non-toxic, or mild solutions of otherwise injurious germicidal agents. Preparatory preparation of the field of operation consists in scrubbing membranous, dental and other surfaces, removal or antiseptic care of teeth or roots, and at least temporary stopping of carious tooth cavities. My post-operative sheet anchor is dioxogen,* which gives mechanical cleansing, in setting free the dead mucous cells and destroying the resistant nature of the intervening secretions, while at the same time it gives an immediate and powerful effect on bacteria in destroying their vital properties."

A NEW ANESTHETIC.

To go to sleep quietly before a surgical operation, to slumber peacefully after it, and to waken up as if from natural sleep with no recollection of what has happened, and with health and appetite unimpaired—all this seems an unrealizable ideal in anesthesia; yet we are assured that French physicians have found a new anesthetic that accomplishes all these results. Up to this time it can not be said that any substance in use has quite realized the surgeon's ideal. Chloroform and ether are the most common, but with chloroform there are occasional accidents which do not appear altogether preventable, even with the recent devices that enable the physician to administer it mingled with air in any desired proportion. As to ether, its well-known after-effects are most disagreeable. Some recent attempts to utilize the anesthetic qualities of other chemical substances, culminating in the discovery just mentioned, are described in *Cosmos* (Paris, May 27) by a contributor. He says:

"Other liquids, such as the bromid and chlorid of ethyl, or their mixture in certain proportions, produce rapid anesthesia with

*I use Dioxogen because in my experience it has proved the most uniformly free from acid of any of the preparations of H_2O_2, commonly sold as such, and because an impure or a strongly acid solution must necessarily be absolutely prohibited when hourly treatments of the mouths of patients, many of whom are infants, is prescribed.

a minimum of danger, but their effect is fleeting, lasting scarcely one or two minutes, and it can generally be utilized only for very short operations—the opening of abscesses, the extraction of teeth, the removal of adenoid growths.

"Cocain and its recent substitute, stovain, produce local anesthesia that is very useful for small operations in a limited region. By injection of either of these substances into the spinal marrow we may produce insensibility of the whole lower part of the body, which with a sufficient dose may be extended over the whole body. But in spite of the progress of antiseptic manipulation . . . some cases of death and others of paralysis have followed the use of this method."

The writer reminds us that the awakening from the effects of all these anesthetics is more or less disagreeable. The Parisian hospitals, however, are experimenting with a substance that is said not to possess this inconvenience. This agent, which is named "scopolamin," is an alkaloid extracted from a plant (*Scopolia japonica*) of the nightshade family (*Solanacea*), sometimes known as "Japanese belladonna." This has been familiar to physicians for many years as a sedative and it has even been used as an anesthetic since 1900, but the most successful methods date only from December last. The substance is now used mixed with morphine, and three hypodermic injections are required, each of which throws the patient into a deeper sleep until he is quite insensible. A peculiarity is that the muscles do not became flaccid, and that the patient may be awakened as from normal sleep. Says the writer:

"It is very important to note that no matter how deep the sleep may be, if the patient be shaken or spoken to loudly and insistently, or if a noise is made near him, he will awake precisely like a man in a natural sleep. But if he is pricked or pinched he shows not the slightest sensitiveness. This complete anesthesia, with persistence of the intellectual functions, is particularly striking with scopolamin, which seems to act exclusively on the sensitive fibres.

"After the operation, the patient is placed in his bed, where he continues to sleep as calmly as before it: the breathing is very quiet, and not the least complaint is heard, though sometimes there is a good deal of perspiration.

"The duration of the sleep varies slightly with different subjects; it averages four or five hours after the operation (or nine to ten hours in all).

"The awakening takes place exactly as in ordinary sleep. The patient opens his eyes, and his face expresses astonishment at finding himself in bed. He tries to get his ideas together . . . and asks questions of those about him, wanting to know whether the

operation has yet taken place; generally he calls for a drink and then goes to sleep again for several hours. Sometimes he stays awake and wants something to eat. Several have refused to believe that they have been operated upon.

"On the morrow, the patient eats in his customary manner and follows with appetite the regimen demanded by the operation that he has undergone.

"Finally, and this is an important point—none of those operated upon remember anything of the operation or of its pain, even when they have appeared sensitive during its progress; and this fact is the most striking because some patients have appeared to be completely awake through the operation, speaking and complaining as if they had received no anesthetic.

"Some surgeons, after the first injections of scopolamin, administer chloroform. The effects are nearly the same, and in this case the scopolamin has the advantage of saving the patient from apprehension of the operation and of the chloroform . . . ; but this addition is unnecessary, and scopolamin alone appears to furnish a prolonged anesthesia without the inconveniences of chloroform."—Translation made for *The Literary Digest.*

Medico-Legal

TRAUMATIC HYSTERIA.

A most interesting case has just been concluded in the High Court of Justice, before Judge Chute, at the Spring Assizes—namely, Lewis *v.* Toronto Street Railway. The plaintiff, who was a healthy young negro girl, aged 23, had attained some success as an artist, and is well educated, sued for $25,000 damages for injuries received while traveling as a passenger on the railway worked by the defendants.

The accident happened on June 6th, 1904. Miss Lewis was in an open electric car, about the fourth seat from the front; the car was at the time traveling at a fair rate of speed when a phenomenon occurred described as an explosion, accompanied by flames and sparks, which arose about her and flew up into her face. Overcome either by fright or shock, she fell or jumped off the car, and was picked up shortly after by a policeman, to whom she was able to speak intelligibly. After being taken home she became unconscious, and remained in that condition for four or five days, when she recovered consciousness, but was found to be paralyzed, suffering very severe pain in the head and back, with marked photophobia, the eyelids being kept tightly closed. The left side was anesthetic and completely paralysed, the right partly so. Her mother, who attended her, stated that her hair and lips were burned and that she was bruised severely on the left side, but there was no evidence to support this statement. She remained in this condition for ten months, the only change of importance being a slight reduction in the amount of the paralysis, and some change in its exact location, and the occurrence of at least two severe convulsive seizures within two months of the accident.

Mr. I. H. Cameron was appointed to examine the patient for the court, and several medical experts were called, including Drs. Meyers, Powell, Caven, Reeve, Wishart, and Cassidy, who was the attending physician throughout the greater part of the illness. There was practically no disagreement among the experts as to the nature of the trouble, which was diagnosed as traumatic hysteria, though there was some difference as to the probability of ultimate recovery, the probable time that would still elapse before recovery, and the possibility of recurrence. No evidence was adduced to prove the existence at any time of any injury having an anatomical

basis, but the court admitted the construction of the word "injury" to include not only shock, but fright. The experts for the defence when pressed to set a time for probable recovery, claimed that it should not exceed one year from the cessation of litigation, as the authorities were agreed that the existence of legal proceedings had a tendency to prolong the condition.

The cause of the phenomenon was shown by electrical experts to have been in all probability the formation of an arc or circuit by the approach of a wire to the wheel caused by the jolting of the car, and the argument of negligence was based upon the condition of the apparatus that would allow such an occurrence.

The judge called attention to the rule that damages were not recoverable for merely mental injuries, but held that there was no contributory negligence on the part of the plaintiff, even if she had jumped off from fright. The verdict of the jury was for $10,000.

The case is extremely interesting, as it is the first in which the condition for which damages are claimed was admitted to be a pure hysteria, and in which no physical injury was proven as the exciting cause apart from fright and shock; while, from a medical point of view, the history of the case and its ultimate result will be of value as affording a test of the probable duration of other similar cases.—*B. M. J.*, June 17, 1905. W. A. Y.

School Hygiene.

EPIDEMIC SYNCOPE.

Clowne, a small coal mining town in Derbyshire, was unknown to fame (medically speaking) until May 17th of this year. It is true that the teachers of the elementary school report that they had noticed "something objectionable" about the air of the girls' class-room since last summer holidays, and that solitary cases of fainting have occurred. But in the week following May 17th, 46 cases of fainting occurred in this class-room. An escape of gas was noticed in the lobby, and this matter was at once set right, but the cases of syncope occurred quite as frequently afterwards. Accompanying symptoms were chills and rigidity, and the patients were, afterwards, in a weak condition, and were assisted or carried home. The fainting fit lasted from 15 to 30 minutes. The school was twice closed for a short period, but, on classes being resumed, fainting again occurred among the girls. The infants in an adjoining class-room were not affected. The county council authorities were notified, and Dr. Barwise, the county medical officer, went to Clowne and made a careful investigation. The floor was taken up and the gas pipes examined, the drains were examined, and tests were made for carbon di-oxide and carbon non-oxide but all with negative results. Dr. Barwise ordered that the chimneys should be swept and fires lighted and, on discovering that all the open fire-places in the school had been carefully stopped up, he ordered that these should at once be opened again, and, further, that a class of boys should be placed in the offending class-room. This was done, and the boys have, at last reports, retained consciousness.

Dr. Barwise thinks it certain that the attacks are due either to (1) poisoning by carbon non-oxide, or (2) a nervous origin. It should be added that the "oldest inhabitants" do not agree with the doctor. They have another theory, based on practical experience in mining accidents. It is known that a "fault" runs through Clowne, and that the "fault" passes under the school. The recent earthquake was distinctly felt in Clowne and, therefore, the old miners think that the girls were, perhaps, poisoned by "after-damp" set free by the disturbance consequent on the earthquake.

If this is correct, it may explain the immunity of the boys, inasmuch as the supply of "after-damp" is probably exhausted.

Physical Education.—It is proposed to form in Great Britain a National League for Physical Education, and the movement in this direction, which was inaugurated on July 20th, 1903, at a dinner given at the Atheneum Club, for the purpose of discussing the question, has been already so generally approved of by institutions and societies, and by men and women distinguished in science, education, law, medicine, and public affairs, as well as members of both houses of Parliament, athletes and others, that there can be no doubt of its success, and indeed of its necessity. Lieutenant-Colonel Wellor, of the Twentieth Century League, 28 Victoria Street, London, S.W., is the secretary *pro-tem.* Among those who are to speak at a preliminary meeting to be held at the Mansion House are, the Lord Chief Justice of England, the Bishop of Ripon, Sir William Broadbent, Sir James Crichton Browne, Mrs. Bramwell Booth, Alderman and Sheriff Strong, and Mr. J. Crompton Rickett, M.P. The League owes much to the enthusiasm and self-denying labors of Sir Lauder Brunton, who does the most of the work, but, like "Bobs," "does not advertise."

"Temperance" Text-Books.—When next we have a book of lessons on "Intemperance" considered in Ontario, prithee let us have a teacher and a doctor collaborate. Teachers, as a rule, are very temperate, and so are a good many doctors. The things that are taught to young children sometimes under the name of "Temperance," would almost make the angels weep.

Children Gain Weight Periodically.—Some curious experiments have been made at one of the royal philanthropic institutions in Copenhagen. For some years back the 70 boys and girls in the place have been carefully weighed every day in groups of 15 and under. Thereby it is proved that the children gain weight mostly in autumn and in the early part of December. From that time to the end of April there is scarcely any increase in weight. More remarkable still, there is a diminution till the end of summer.

Diseases Dangerous to the Public Health.—The Michigan State Board of Health in compliance with Act 60,146, Laws of 1895, sends to each school superintendent and teacher in Michigan every little while, bulletins prepared for use in schools, giving special lessons on health subjects. The above is the title of one of these bulletins, of which the 15th edition (243,000) has recently been issued. This is a good plan. These bulletins constitute the text-book on the subject, and the teacher is required to use them. But they are at once sensible and interesting, and we think the teachers, probably, are only too glad to use them.

Free Feeding.—Now that all England has decided that starving school-children must somehow be fed, Miss Marion Elliston makes a good suggestion to prevent pauperisation. This is briefly as follows: She proposes to attach a "school restaurant" to each of the two hundred school kitchens already established by the London County Council, for the instruction of school children in cookery for working-people. In these school restaurants the children could obtain a breakfast for 1-2d. or 1d., and a dinner for 1d. or 2d. To the head-teacher tickets could be given for the use of those children who needed such assistance, to be used at his or her discretion.

Hygiene and Physiology in Schools.—One of the practical questions recently discussed in England in regard to School Hygiene has been the dearth of teachers properly trained in school Hygiene (a very broad and deep subject nowadays). Dr. Heron, in an article on this subject, suggests that physicians should visit the school regularly to give this instruction, and that the teacher should not be expected to give it, as it needs special professional knowledge and training. He would offer this post first to the school physician, then to the local health officer, and failing these, to a physician in active practice. There is much to be said on both sides of this question. The teacher is over-worked and underpaid, and, moreover, does not as yet, either in the Normal Schools of Ontario or anywhere else, receive the necessary training. But after all, in many ways, the teacher is the best one to do this work. We are glad to see that the Ontario Medical Association, the Ontario Educational Association, and the Provincial Board of Health are studying out this problem. The community looks to them for advice. H. MacM.

The Canadian Journal of Medicine and Surgery

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., *must be* in our hands by the fifteenth of the month previous to publication.

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Editorials.

RACE SUICIDE IN ONTARIO.

SCATHING criticisms about race suicide have been heard at church synods for some years back, and condemnatory observations anent a failing birth-rate have appeared in successive reports of the Registrar-General of Ontario. These criticisms and regrets are well-meant; but the people do not take them seriously to heart. So little attention is paid to them that, if tested by their results,

one might say that a good many of the married people of Ontario "have ears and hear not." It seems quite useless for moralists, statisticians and publicists to politely suggest to the married woman of Ontario to-day, that she ought to imitate her mother or grandmother in raising a fine family of ten or twelve children. Moralists, statisticians and publicists of sixty years ago had little to do with the social and economic conditions which held a married woman down to the laws of her reproductive nature, causing her to bring forth as many children as she was able to bear. The general opinion of her own sex at that time favored such additions to the birth-rate. Large families were common in Ontario; families of one or two, after a married life of ten years and over, were exceptional. Sixty years ago, dwellings, even in towns and cities, were small; housekeeping simple and rude; the men and women possibly of sterner stuff than their successors of the present generation. Domestic help, abundant and good of its kind, could be got at low rates; monthly nursing was obtainable at easy terms. To-day, domestic service and obstetric nursing cannot be got at low rates, while the rate of wages earned by tradesmen, clerks, etc., though higher than it used to be, does not bear the proper ratio to the wages demanded by domestic servants and monthly nurses.

No sensible man objects because women have won the right to practice medicine, law, architecture, or any other profession; but he objects when domestic servants and nurses ask for wages so high as to make them prohibitory, unless to the wealthy. Besides, domestic service is costly, because it is no longer abundant. In cities, the mass of working girls—shop girls, factory girls, etc.—look with disdain at a girl who works in a kitchen, even though she should dress well when out-of-doors, and though she can earn better wages than they do themselves. Out of democratic conceit, or because some of their sex have entered professional life, girls find something degrading in domestic service, and they shun it. This is the case, even when the family is of exiguous proportions; but should the reply to her first question, "How many in the family?" be "Eight or ten," Jane abruptly closes the interview. Then, again, many landlords refuse to let their vacant houses to people blessed with large families. But, in this city at any rate, no matter whether the family be large or small,

rents, particularly the rents of small house property, have more than doubled in the last ten years. Thus a seven-roomed house, that used to rent at $12 a month, is now rented at $25, and, if vacated, could be let for $30. There are other reasons why children are unwelcome—poverty, inability to clothe and nourish them properly, love of amusements, etc.—but the list is long enough. Any presumably sane woman, the wife of a tradesman, clerk, or struggling shopkeeper, who adds to the difficulties of her lot in life, by increasing the population, is regarded by her female friends as silly, a fit subject for pitying regards.

It need not be wondered at, therefore, that married women—good women, too—practice what their better natures revolt at, and that they sometimes take risks to health and life, of the most desperate kind, rather than bear children. Husbands, no doubt, have something to answer for in the adjustment of the reproductive question; but, in most instances, they are swayed by the opinions of their wives, who, in the last analysis, respond to the unwritten social and economic ideas of their own sex. Moralists may deplore, statisticians may regret, and publicists fuss over the race suicide observed in this part of Canada; but the married women, the strictest of logicians in matters pertaining to the family, have settled the birth-rate of Ontario and it is going to be small.

J. J. C.

STOVAINE, A NEW LOCAL ANESTHETIC.

The hydrochloride of a benzoyl derivative, called hydrochloride of *dimethylaminobenzoylpentanol,* or more simply, using Ladenburg's nomenclature, the hydrochloride of amylene $\alpha\ \beta$, is known in commerce as "Stovaine" and enters the therapeutic field under the same name. It was first extracted from the group of amino-alcohols by a French chemist, M. Fourneau. It was presented to the Academy of Medicine, Paris, by M. Billon, March 15, 1904, and subsequently, May 15, 1904, to the Academy of Science by MM. Launoy and Billon. When studying the new drug, M. Billon made a test of its toxicity, as compared with that of cocaine. Using a one per cent. solution of stovaine, he gave five intravenous injections of it to a rabbit, which weighed two kilo-

grams, 450 grams, the entire amount injected representing 25 cubic centimetres of the solution. The rabbit exhibited some symptoms of nervous shock, and had a slight tetanic convulsion. On the other hand, injections of 8 to 10 cubic centimetres of a one per cent. solution of cocaine killed a rabbit of the same weight.

Since that time, laboratory studies and chemical experiments have been sufficiently multiplied to enable students to form accurate opinions of the action of the new anesthetic.

Stovaine crystallizes in brilliant scales, which bear a strong likeness to hydrochloride of cocaine. It melts at 175 deg. C. It is very soluble in water. Like other alkaloids, it is precipitated from watery solutions by a solution of mercuric chloride and the solution of potassio-mercuric iodide. It is precipitated by weak alkalies. It is decomposed by sulphuric acid, setting free benzoic acid. It gives a precipitate in presence of alkaline phosphates, It is soluble in methylic alcohol, as well as in ether. Absolute alcohol only dissolves 1-5th part of its own weight of the drug. It is very slightly soluble in acetone. It shows a slight acid reaction in the presence of litmus paper, but is neutral to helianthin. Its watery solutions are sterilizable by heat. Prolonged boiling for an hour does not change it. It is much more stable than cocaine.

In his recently published thesis, "Les Injections Analgésiantes Loco Dolenti dans les Nevralgies Périphériques," Dr. de Maillasson, Paris, states that stovaine has several advantages over cocaine.

"In the first place, it exercises a real action in relieving the pains of inflamed tissues, whereas cocaine has scarcely any effect in such cases. To anesthetize inflamed tissues with cocaine, it is necessary to employ very toxic solutions of that drug (1:40). The weak toxicity of stovaine has been recognized by many authors, particularly by Billon and Fourneau, who have demonstrated that the fatal dose of stovaine is 0.20 per kilogram of the weight of an animal, while the fatal dose of cocaine is 0.05, according to Livon, or 0.075 according to Pouchet. Stovaine rarely kills the guinea-pig; dogs and cats, which have received injections of it, have convulsions, the drug acting as a poison to the nervous system. In operating on the human subject, Reclus has employed, without accident, 20 centigrams of stovaine, and Chaput, 22.5 centigrams. Its toxicity is the same, no matter what route is

used for introducing it into the system. Although less toxic than cocaine, stovaine possesses the same anesthetic power as the former, according to Reclus, Huchard, Chaput, and de Lapersonne."

It apparently does not contract the nasal mucosa to so great an extent as do similar solutions of cocaine. If it is desired to open the nasal passages widely, as for examining purposes, this characteristic may prove a disadvantage; on the other hand, it may prove an advantage, as in the snaring of redundant tissue, by not causing the nasal mucosa to shrink too much, and, therefore, enabling the operator to remove it more easily. The secondary swelling of the nasal mucosa following the use of stovaine is less than that occurring after cocainization. In some patients cocaine causes considerable constriction in the pharynx, with a constant desire to hawk and remove a supposed foreign body. Stovaine produces much less of this distressing symptom. After the local anesthetic effects of stovaine have disappeared, there are no secondary headaches or feeling of lassitude.

M. de Lapersonne, Paris, who has employed it in ophthalmic practice, finds that it contrasts favorably with cocaine, being less toxic in its effects than that drug. It can be used for ophthalmic operations, either as an instillation (4 per cent. in normal saline), or as a subconjunctival injection. On the whole, it is inferior as an instillation to cocaine; on the other hand, as a subconjunctival injection, it surpasses cocaine in its effect. By combining stovaine and cocaine in the proportion of two to one, a mixture for instilling purposes is obtained which does not irritate the cornea, nor cause alteration in the vessels or tension (*vide Presse Medicale,* April 13, 1904).

Professor Reclus says: "Stovaine and also cocaine seem to me to be properly used in the removal of circumscribed cutaneous and subcutaneous tumors, in operations for lupus, lipomata, fibromata, cancroids, in amputations of fingers or toes, in operations for ingrowing toe-nails, whitlows, abscesses, gastrotomies, artificial anus, hernia, umbilical, inguinal or crural (strangulated or not strangulated) hemorrhoids, anal dilatations, hydroceles, varicoceles, castrations, laparotomies for non-adherent ovarian cysts, tubercular peritonitis, empyemas, with or without costal resection. In my hospital service, two-thirds of the surgical operations are

done with stovaine." (*Vide* La Stovaine, Dr. Réné, Piedallu, de l'Université de Paris.) Professor Reclus uses solutions of 0.75-100 and 0.50-100 which can be injected up to 40 c.c. without inconvenience. The technic is the same as that adopted in producing local anesthesia by cocaine.

Professor Tuffier has employed it frequently in producing spinal anesthesia. He begins his operation two minutes after the hypodermic needle has been withdrawn from the spinal canal. Stovaine employed in this manner produces analgesia as high up as the umbilicus, and, consequently, is suitable for operations on the perineum, iliac fossæ and the lower extremities. Solutions of one per cent. of stovaine have been injected into the gums in dental cases; two centigrams, that is to say, 2 c.c. of this solution, suffice for the extraction of a tooth.

In general medicine, Huchard has used it in proximity to the painful areas in cases of neuralgia, and also in epidural injections. He considers that it renders important services in intercostal neuralgia, lumbago, and sciatica. Huchard uses a one per cent. solution and injects 2 to 3 cubic centimetres, subcutaneously or deeply, and only 2 centigrams in epidural injections, at intervals of two or three days. So far stovaine is on trial; but, from the experiments made with it, it is likely to become a formidable rival to cocaine.

J. J. C.

THE NEW HOSPITAL AND ITS RELATION TO THE PROFESSION.

Progress—the word of the hour! In its name we congratulate the city of Toronto, the University, and the entire medical profession of the new General Hospital, the building of which is now an assured fact. Many a discussion has taken place, and many an idle word has been spoken for and against the scheme in its infancy, as it hovered between a dream and a wide-awake reality. Now, the decision of the city council in granting two hundred thousand dollars toward the project we deem final, and the new hospital, as it takes its place in our midst, will represent all that is modern, and will, we understand, have on its gates "Open Sesame" to all reputable medical men (not as a privilege, but as a right), to follow their patients into private, semi-private, and other wards where they pay for the cost of their main-

tenance. This arrangement is not only just but is one to favor unity and a keener loyalty to one another among members of our profession, uniting them by a common interest. Of course it goes without saying that only the regular staff of the hospital will attend to the medical and surgical needs of "free" patients. The great, new institution will be a boon to the medical faculty of Toronto University for clinical purposes. Although this point is a very necessary and important one, it should also be remembered that the purpose of the hospital is to extend aid to the afflicted, and not to be simply a university institution. All that remains now to be done is for more of our wealthy men to come forward, Cawthra Mulock like, and render generous aid. To those interested in the smaller institutions, may we say, perhaps the day is not far distant when the few individual hospitals will make suitable arrangements to became *parts* of the central one, and so share in the benefits and facilitate the work and place all buildings on an equally modern scale. Perhaps this suggestion sounds Utopian. We think not, because, as Valdimar said to little Elsie, "To-morrow will bring another day"—and we doctors are accustomed to live on such threads as hope is woven of. The amalgamation would certainly prove advantageous to all. To gain the desired end, however, a few of the "chatty" men in the profession would need to hush the music of their melodious (?) voices, and do a little quiet thinking, and come to the conclusion that in unity lies strength, dignity and prosperity. Then, perchance, the new central hospital might add several auxiliaries in different parts of the city, that would Phœnix-like arise out of the ashes of some much-needed bonfires, and the united hospital, with its well equipped branches, tower, a monument to the judgment and common sense of the medical profession, as a body, and in the lives of the people be ever a legacy of the twentieth century to Toronto the good.

W. A. Y.

EDITORIAL NOTES.

The Vital Statistics of Ontario for 1903.—The report of the Registrar-General of Ontario for 1903 shows that the marriages registered for that year numbered 19,830, corresponding to a rate of 9.0 per 1,000 of the total estimated population, 2,198,692. "The increase of 1,842 over the preceding year," the report says, "is most marked, for, in 1902, the increase was only 37 over 1901." The marriage rate is regarded as satisfactory. There were registered during the same year, 48,742 births, including still-births, 25,071 being male, and 23,671 female, the rate being 22.1 per 1,000 of living persons. This rate is lower than that of any European country, with the exception of France, in which in 1900 it was 21.9. In comparison with adjoining states and provinces, it is found, from the latest returns, that in the year 1902 the birth-rate was as follows:—Quebec, 34.05; Rhode Island, 25.09; Connecticut, 22.5; Vermont, 21.9; New Hampshire (1902), 20.04; New Hampshire (1903), 19.68. The deaths for 1903 numbered 29,664, including still-births, a rate of 13.4 per 1,000. This was a little larger than in 1902, but is satisfactory, particularly when compared with adjoining states and provinces for 1902. In that year Quebec had a death-rate of 18.2 per 1,000, and the nearest approach to that of Ontario was Connecticut, with a rate of 15.2 per 1,000. These reports thus show for Ontario, in 1903, a marriage rate of 9.0 per 1,000; a birth-rate, including still-births, of 22.1, and a death-rate, including still-births, of 13.4 per 1,000, the former and the latter being officially regarded as satisfactory, and the birth-rate as unsatisfactory.

Residential Properties and Eye-sores.—The depreciation in value of a residential property owing to the construction of an eye-sore in its neighborhood, sometimes calls for rather animated comment. Relying on appearances, gentlemen have built handsome residences on the best residential streets in this city, and have found out, after a few years, that undesirable neighbors had become impressed with the advantages of sites on the same street, equally with themselves. In the case of physicians, this fact is especially noticeable. The Toronto physician keeps his office in his dwelling, which is situated on a thoroughfare, or in the vicinity of

one. The vicinity of a thoroughfare may be free from the invasion of trade and commerce; not so the thoroughfare. Hence, the physician who buys a house on a thoroughfare, while estimating its present value to himself, should look ahead and endeavor to estimate its value or utility to some other man, after ten or fifteen years. Toronto is a growing city and must continue to enlarge, as the chief trade and manufacturing centre of Ontario and the North-West provinces. Houses, well suited for dwellings ten years ago, have been changed into shops and factories, and what has been, and is, will be. What cannot be cured must be endured; but it does hurt one's feelings, and one's pockets also, to have an eye-sore erected altogether too close to the walls of a pretty house, where one had hoped to escape the blighting influence of a residential blemish for many years. Recently a municipal by-law providing for the creation of a residential district in this city was passed. This district is bounded by the north side of College street, the south side of Bloor street west, the west side of Yonge street, within 200 feet of the rear of the lots abutting on that street, and the east side of Spadina Ave., within 120 feet. The values of properties situated within the above-mentioned limits will be enhanced; but the principal object sought by the promoters, many of whom are physicians, is to exert an inhibitory influence on the growth and development of the eye-sore nuisance in the new residential district.

Nearly Bled to Death.—Death from arterial hemorrhage is peculiarly shocking to the surgeon, and most surgeons think that the means of promoting it should be placed within the reach of every pupil in the public schools. In this city, last June, a young man narrowly escaped bleeding to death. His arm was cut off just above the elbow by a belt on a flywheel in a machine shop. With the blood spurting from the maimed arm, the young man staggered away from the machine. The other men in the shop did not know how to check the flow of blood, and therefore telephoned for the ambulance. The driver of the ambulance drove his horse at a gallop to the scene of the accident. By tying a handkerchief around the stump and twisting it by means of a stick, he arrested the hemorrhage. The injured man's arm was subsequently dressed at the Emergency Hospital. Many intelligent but hypersensitive persons of the male sex faint at the sight of

blood, and even if they knew how to check a hemorrhage, would be speedily unfit to do it. However, a Spanish windlass, the device improvised by the driver of the Toronto ambulance, is so easily applied, and so effective, that every pupil of the public schools should be taught how to make one.

Drug Treatment for Inebriety.—J. S. Bolton. M.D., Nottingham, England, reports in the *British Medical Journal,* June 10, 1905, that early in Aug., 1904, he began to treat a case of chronic inebriety by hypodermic injections of strychnine and atropine. The treatment was administered twice a day at the doctor's office. The patient, a tailor's cutter by trade, was 45 years of age. He had been a total abstainer till he was 20, then a moderate drinker for ten years, at which time he began to drink whiskey, continuing the practice until he could not give it up. He had tried many times to give up drinking, but the effort had always ended in failure. Finding his organs free from organic disease, Dr. Bolton commenced treatment by injecting into the biceps muscle of his left arm a watery solution containing 1.60 gr. of strychnine hydrochloride and 1.30 gr. of atropine sulphate. He also gave him a mixture containing red cinchona bark, to take every four hours. The patient was told to take as little alcohol as possible, and his wife was instructed to give special attention to his diet, feeding him on eggs and milk, soup, cocoa, etc., until he had an appetite for solid food. Treatment was continued twice a day for forty days; after which he came once a day; then every second day till October 13th, 1904, when he was told that he need not come again for treatment, but only to report himself, unless the craving returned, in which case he was to come at once. Dr. Bolton says: "I saw him just before Christmas (1904). He was keeping right, but said he did not like to be too confident till the festive season was over. He, however, passed through it satisfactorily. I hear of him now every few weeks, and he is keeping straight. It is quite evident that, under favorable conditions, some of these cases can be successfully treated as out-patients by the family doctor, if he has sufficient time and patience to give to them."

Hepatic Congestion a Factor in Seasickness. — Persons who eat too much, sleep too long and take little exercise, have congestion of the liver, and, if attacked by seasickness, are apt to suffer

from prolonged and distressing symptoms of nausea. A distinguished clergyman, a noted preacher, had been sent to Europe by his admiring congregation, in order to enable him to get rid of an obstinate dyspepsia. During a month's stay abroad, he gave his brain a rest, ate heartily, slept a good deal and, as usual, took but little exercise. Shortly after the return trip to America was begun, seasickness seized him and held him for a week. Yet, he confessed, while walking the deck, as the ship was nearing port, that his health was then better than it had been for many years. In reference to the *modus operandi* of cure, he added, naively: "If any physician had given me a course of treatment half as severe as that ordered for me by Neptune, I would not have tolerated it." There was so much philosophy in this remark, that we thought then, and have often thought since, that physicians should try the "Neptune" method of treating the dyspepsias of patients who suffer from congestion of the liver. As the prevention of seasickness is better than its cure, it may be well to remark, that an emetic, followed by a cholagogue cathartic, taken before sailing, was successful in preventing attacks of seasickness both in going to Europe and returning, in a gentleman who, when no medicine had been taken, had previously suffered from seasickness, even when crossing from Toronto to Niagara-on-the-Lake.

Retirement of Dr. Reynolds from the Commissionership of Health of Chicago.—In retiring, after ten years' service, from the position of Commissioner of Health of Chicago, Dr. Reynolds shows that the health conditions of Chicago have vastly improved during his administration. "Its death rate during 1893 was 212 in every ten thousand of its population, of all ages. In 1904 the rate was 136 in every ten thousand. Improvement in general healthfulness, 36 per cent. In 1893 there were 8,125 infants out of 32,954 living under one year of age—a rate of 246 per thousand. Last year, out of 40,578 living under one year, there died 5,125—a rate of 124 per thousand. Reduction of infant mortality—50 per cent. In 1893, out of a child population of 121,564 living between one and five years of age, there were 4,328 deaths—a rate of 35 per thousand. In 1904, out of 162,315 children living at this age-period, there were 2,027 deaths—a rate of 13 per thousand. Saving of child life, 64 per cent. In 1893 the aggregate ages of the 27,083 individuals, who died during that

year amounted to 617,492 years, or an average of 22.8 years each. In 1904 the aggregate ages of the 26,313 decedents footed up 855,107 years, an average of 32.5 years each. Increased duration of life during the last twelve years, 42.5 per cent., or an increased "expectation of life" of nine years and nine months for every man, woman and child living in Chicago. Referring to the causes and influences operating for the decreasing death rate of Chicago, Dr. Reynolds puts *first* the educational work of the department, through the bulletins, circulars and leaflets, popularized by the daily press and eagerly taken up by the Woman's Club and kindred organizations. The Chicago people have thus learned the importance of an improved milk supply in the saving of children's lives between one and five years, the "milk feeding" period. The antitoxin treatment of diphtheria has been promoted. The restriction and prevention of consumption has been taught. The practice of vaccination has been completely revolutionized in Chicago, and the Chicago people are now a vaccinated population. Adults have learned to know the relation between impure water and typhoid fever. Mothers have been taught the hygiene of the young. Dr. Reynolds pays a tribute to the medical profession of Chicago: "In ten years the attitude of the profession to the department has undergone a remarkable change, and it is to-day one of the most efficient factors in the prevention of disease and the promotion of longevity." Dr. Reynolds deserves to be complimented on his administration of the sanitary service of Chicago, and Chicago may be felicitated on her good fortune in having enjoyed for ten years the services of so honest and capable an official.

J. J. C.

PERSONALS.

Drs. G. S. Ryerson and E. E. King returned from England last month.

Dr. Chas. O'Reilly is building a residence on the north side of College Street.

Wilson—To Dr. and Mrs. F. W. E. Wilson, Niagara Falls, on July 11, a son.

Congratulations to Dr. W. H. Pepler on a welcome addition to his little family last month.

The engagement of Dr. D. King Smith, of Jarvis St., to Miss Myles, of Queen's Park, is announced. Dr. Smith is at present studying in London but will return this month.

Dr. Jos. Graham, son of the late Dr. J. E. Graham, and who is occupying Dr. G. A. Peters' house at present, is building a house on the south side of College Street, next door to Dr. Garratt.

Dr. John McCollum, brother of Dr. W. J. McCollum, has been appointed by the Ontario Government on the list of city coroners. The new appointee, who is probably the youngest of Toronto's coroners, was formerly on the house staffs of the General and St. Michael's Hospitals.

Since the other forms of text for this issue went to press, we understand that, as a result of Dr. Meyers' deputation to Premier Whitney, it has been arranged that this autumn, sometime, suitable arrangements will be made at Toronto General Hospital whereby a special department will be set aside for the treatment of cases of incipient insanity.

Dr. H. P. H. Galloway, who for some years has been actively associated with Dr. B. E. McKenzie, in the Toronto Orthopedic Hospital, Bloor St. E., left on the 29th ult. for Winnipeg, Man. Dr. Galloway will take up practice there, and expects to open an orthopedic hospital in the course of next year, as a branch of the parent institution in this city. We wish him every possible success.

Prof. A. B. McCallum, of the University of Toronto, left on June 30th on a lengthy trip. He is a member of the British Association, which meets in August in Cape Town for three days, and in Johannesburg the following week for four days. Excursions have been arranged to the more important points in South and Central Africa, especially those that were storm centres during the war. Prof. McCallum will return by the Red Sea route.

Obituary

DEATH OF DR. THOS. G. JOHNSTON, M.P., WEST LAMBTON.

The entire profession were shocked to read in the morning newspapers of July 4th, that Dr. T. G. Johnston, M.P. for West Lambton, had succumbed to but a few days' illness. Dr. Johnston died at Ottawa at 12.22 a.m. that day. It was over four weeks prior to that that he was attacked with erysipelas in the face. This gradually spread, and settled in the bowels, developing into a virulent form of blood-poisoning. Dr. Johnston maintained a gallant fight against the disease, and until the last hopes of his recovery were cherished. His devoted wife and daughters, and eldest son, Kenneth, were at his bedside when he passed away. Deceased received the best medical aid that Ottawa could afford. Dr. McKinnon was in constant attendance, and when the patient's condition grew serious, Sir James Grant, Dr. R. W. Powell, Dr. Carsens, and Dr. Courtney were called in consultation. The late Dr. Johnston was beloved by everybody in the House of Commons. He was a quiet, amiable man, who was staunch in his political beliefs, but was never known to utter a word calculated to wound. His death is unfeignedly mourned by members and employees of the House alike.

Members of the House recall the circumstances under which the late Dr. Johnston received the reported death of his son Kenneth. He kept his great grief in check, and all he said was: "He died a glorious death."

The late Dr. Johnston was the son of T. W. Johnston, M.D., who came to Canada in 1832 from the north of Ireland, and settled on a farm in Moore Township, Lambton County. The father adopted medicine as a profession and studied at Louisiana Medical College, graduating as a physician after four years in that institution. He began his practice in Sarnia, where the son was born, August 4th, 1849. Dr. Johnston, sr., was in his latter years, Registrar of Lambton County. His wife was Grace, daughter of Thomas Sutherland, Edinburgh, Scotland. The son received his education at the public and grammar schools, Sarnia, and at McGill University. He entered the medical department of the latter institution in 1867, and graduated M.D. four years later. He succeeded to his father's medical practice in Sarnia, and carried it on

successfully. He assisted in the establishment of a general hospital in that town. The late Dr. Johnston was an active participant in public affairs. During two terms, 1896 and 1897, he was Mayor of Sarnia, and was for four years a member of the School Board. He also served in the Municipal Council several years. In politics the late Dr. Johnston was an ardent Reformer and a staunch supporter of Sir Wilfrid Laurier. When a vacancy in the representation of West Lambton occurred, owing to the elevation of the late Judge Lister to the Bench, Dr. Johnston was the unanimous choice of the Liberals of that constituency, and on December 14th, 1898, he defeated the Conservative candidate, Mr. John Farrall. He was re-elected at the general elections of 1900 and 1904, when he was opposed by Mr. W. J. Hanna and Mr. James Clancy, respectively.

The late Dr. Johnston always took an active interest in militia affairs, and served as member of the Lambton provisional battalion during the Fenian Raid of 1866-'67, receiving a medal for this service. He was a member of the Church of England, was identified with the Masonic body, R.A.M., Knights Templar of St. Simon of Cyrene, Scottish rite, and Consistory at London, and also belonged to the I. O. F. He was married in 1873 to Miss Frances, daughter of the late George Brown, of Goderich. Two sons, Kenneth and Godfrey, and three daughters, were the issue of the marriage. Kenneth served in South Africa with the first Canadian Contingent. He emerged alive from the campaign, although after Paardeberg it was reported that he had fallen in battle.

Perhaps the best proof of the esteem in which our confrere was held, is an abstract from one of the afternoon papers of July 4th: "The news that Dr. Thomas G. Johnston, M.P. for West Lambton, died at Ottawa this morning will cause a great shock to all who knew him. He was pre-eminently an example of the personal equation in politics. He held his constituency against all comers, as much through his own boundless popularity as through the principles and record of the party he had espoused.

"Dr. Johnston had the gift of attracting friendship. He did it without effort. There was something about him that appealed to the most generous and manly instincts of those he met. Without protestations of any sort, he gave the impression—which was the true one—that he was a man who loved all mankind. He exhaled that atmosphere of quiet, abiding benevolence toward the world, which makes the world kind in its turn. Those who came within the radius of this strong, amiable nature, surrendered to its spell at once. The effect of this charming personality was to make friends more affectionate, while it deprived political foes of their bitterness.

"A pronounced Liberal in his views, Dr. Johnston was equally esteemed on both sides of the House. In his own party he was the confidant of many secrets. No 16 brought his cares to him and the doctor prescribed. The prescription generally took the form of a brave smile, cheery word, a shrewd tip on the political weather, and a slap on the back that was particularly heartening. The doctor was one of those calm, confident natures that are built to lean upon, and he never sent the tired and heavy-laden away by reminding him that he had troubles of his own. In his readiness to take on the worries of other people and to put courage into the dispirited, he resembled James Sutherland, who, indeed, had the same quiet air of reserve force, and the same deep-seated inexhaustible geniality of temperament. Such men are a great treasure to any party. They win converts by their own amiability, without opening their mouths to do it. No malice in their hearts toward a living soul, no one has a grudge against them. Their political friends are spurred to unusual efforts by the virtues of their candidate. Their political enemies fight half-heartedly because they are really ashamed to dispute anything with such good fellows."

Death of Nisbett Collver Kitchen.—At his home in South Dumfries, on Sunday, June 18th, 1905, Nisbett Collver Kitchen, aged 68 years. The late Mr. Kitchen was a brother of Dr. E. E. Kitchen, of St. George.

News of the Month.

A NURSES' RESIDENCE FOR THE HOSPITAL FOR SICK CHILDREN.

A RESIDENCE for the nurses at the Hospital for Sick Children, to cost $75,000, is to be erected by Mr. J. Ross Robertson. A permit for the erection of the building was issued to Mr. Robertson, and work will commence almost immediately.

The building to be erected is a gift to the hospital and as a memorial of Maria Louisa Gillbee, the first wife, and Helen Goldwin, the only daughter of Mr. Robertson. The site for the residence is on the grounds of the hospital, south of the main building, and near Hayter Street. It will front north, looking into the hospital grounds, and will extend from Elizabeth Street to Laplante Avenue, a distance of 150 feet. It will be constructed of red brick, in colonial style, and will have about eighty rooms for nurses, domestics, and officials of the hospital.

The new nurses' home will contain on the ground floor a large lecture hall, reception room, library and writing rooms, and will be large enough for sixty nurses, with a general kitchen and a diet kitchen for the instruction of the nurses. It will also contain a large demonstration room, so that nurses may receive in the residence the necessary instructions before entering the wards.

The diet kitchen will be under the supervision of an expert in domestic science, so that every nurse will have a full knowledge of cooking before her course is finished.

The second, third and fourth floors will be for the lodging of the nurses in light and airy bedrooms, with sitting rooms on each floor, baths, lavatories and special study rooms. The fifth floor will be for the domestics and the centre part will have a gymnasium, in which the nurses will have manual and athletic exercises. In the centre of the building will be a roof garden, so that nurses off duty in the summer evenings can get a breath of fresh air.

The building will be ventilated on the most approved principle. The plans have been adopted after a thorough inspection of all the homes in the United States, and the best expert advice from superintendents of homes, such as Miss Nutting, of Johns Hopkins, Baltimore, Md., Miss Drown of the City Hospital, Boston, and Miss Brent, Lady Superintendent of the hospital on College Street.

It is expected that the building will be completed in a year, and be ready for occupation on the 1st of October, 1906. Some years ago Mr. Robertson presented the hospital with the Lakeside Home for Little Children on the Island, which was erected at a cost of $25,000, making his total gifts to the hospital $100,000. In twenty-five years the Lakeside Home has cared for nearly 10,000 sick children, and the mother hospital on College Street, 60,000.

CANADIAN MEDICAL ASSOCIATION.

The following is the preliminary programme of the annual meeting of the Canadian Medical Association, to be held in Halifax, N.S., August 22nd to 25th, 1905:

President's Address.—Dr. John Stewart, Halifax.

Address in Surgery.—Mr. Francis M. Caird, Edinburgh, Scotland.

Address in Medicine.—Dr. D. A. Campbell, Halifax.

Address in Gynecology.—Dr. Howard A. Kelly, Baltimore.

Address in Ophthalmology.—Dr. J. W. Stirling, Montreal.

Discussion.—Renal and Ureteral Surgery. Introduced by Dr. A. Primrose, Toronto.

Two Cases of Retro-Ocular Neuritis—Dr. Geo. H. Burnham, Toronto.

Paper, Title to be Announced.—Dr. H. A. Bruce, Toronto.

The Symptoms, Diagnosis, Prognosis and Treatment of Neoplasms Affecting the Central Nervous System.—Dr. D. A. Shirres, Montreal.

Chorea, with an Analysis of 130 Cases.—Dr. Robert King, Halifax.

Rare Forms of Aneurysm—Dr. Maude E. Abbott, Montreal.

The Buried Suture.—Dr. J. M. Elder, Montreal.

Dentigerous Cysts, or the Removal of the Inferior Dental Nerve for Tic.—Dr. M. C. Smith, Lynn, Mass.

Combination Operation for the Radical Cure of Inguinal Hernia.—Dr. F. N. G. Starr, Toronto.

Two Case Reports:

(1) A Case of Chylo-Thorax;

(2) Further Notes on a Case of Myelogenous Leukemia, with Disappearance of the Splenomegaly and Myelocytes.—Dr. D. G. J. Campbell, Halifax.

Physical and Clinical Researches of Radium.—Dr. Myron Metzenbaum, Cleveland, Ohio.

Prostatectomy.—Dr. E. W. Cushing, Boston, Mass.

The Surgery of the Stomach in Non-Malignant Conditions.—Dr. Geo. E. Armstrong, Montreal.

Dislocations (with Lantern Demonstration).—Dr. J. Alex. Hutchison, Montreal.

The Fever of Late Syphilis.—Dr. Arthur Birt, Berwick, N.S.

Postural Albuminuria of Children—Dr. W. H. Eager, Halifax.

The Prodromata of Insanity.—Dr. W. H. Hattie, Halifax.

The Treatment of Smallpox without Pitting.—Dr. Archibald Leitch, St. Thomas, Ont.

Tracheotomy as a Remedy in Severe Whooping Cough.—Dr. A. B. Atherton, Fredericton, N.B.

Recent Fracture of the Clavicle, with Operative Treatment.—Dr. J. W. T. Patton, Truro, N.S.

In addition to the foregoing, several have promised papers, but have not yet decided upon the title of same.

WORK ON NEW CONVOCATION HALL FOR TORONTO UNIVERSITY COMMENCED.

The stakes were driven on the 13th ult. to mark the site of the new Convocation Hall on the university grounds, on the southwest corner of the campus, and the contractor will begin the excavations for the foundations at once. This part of the work is included in the masonry contract, which has been let to Mr. Robert Robertson, Scollard Street. The other contracts have all been decided upon, the chief being: Plastering, W. J. Hynes; iron work, Dominion Bridge Company; carpentering, A. B. Coleman; painting, J. McCausland & Son, Limited; plumbing, Bennett & Wright Company. The building is to be finished so that the next convocation may be held there.

Mr. Pearson, of Darling & Pearson, the architects in charge, discussed the site, which he thinks will not encroach materially upon the campus.

"I have worked and worried and schemed so that the campus would not be injured, and the plans have been laid so that the view of the main building from College Street will not be obscured. The building has been pulled round a bit to show the treatment of the facade from the main building. The Physics building will be set back from the Chemical building, and the Convocation Hall from the Physics building, so that anyone standing on College Street will be able to see the whole front of the university. We have allowed 75 feet between the Convocation Hall and the Physics building, and 66 feet between it and the Chemical building, so as not to impede the light. There will be a 50 or 60 foot drive in front of the hall.

"We have considered the trees, and intend to dig a trench and drag those worth preserving across the roadway and set them between the campus and the drive."

Mr. Pearson believes there is no site for the hall but that chosen, and holds this view after much consideration. The hall is modelled after the Sorbonne in Paris, one of the best buildings acoustically in the world. Within it will be about 70 feet in height from the floor of the auditorium to the lantern in the roof. Two tiers of galleries will be reached by fireproof stairs, and the whole of the ground floor will be fireproof, while the exits will empty the building of its 2,000 occupants in two and one-half minutes. A twenty-foot loge will run all round the hall, and a cloak room is provided opposite the entrance.

MEDICAL EXAMINERS APPOINTED.

The Council of the Ontario College of Physicians and Surgeons adjourned on the 8th ult. to meet again in Toronto next year. The business before the Council at its closing session was the receiving of the report of the Complaints Committee. The examiners were upheld in their decision in each instance. Upon the suggestion of Hon. Dr. Sullivan, a committee was appointed to wait on the Government, with a view to establishing a Bureau of Health. The Government will also be asked to assist in the establishment of sanitaria for the treatment of consumptives. Drs. Macdonald, Moorehouse and Campbell were appointed the Executive Committee for next year.

These official examiners were appointed: Anatomy descriptive, Dr. T. W. C. McKay, of Oshawa; theory and practice of medicine, Dr. George Hodge, of London; clinical medicine, Dr. H. R. Duff, of Kingston; midwifery, operative and other than operative and respiral diseases, Dr. J. R. McCabe, of Strathroy; physiology and histology, Dr. R. D. Rudolf, of Toronto; surgery, operative and other than operative, Dr. W. T. Parke, of Woodstock; clinical surgery, Dr. J. S. McCullough, of Alliston; medical and surgical anatomy, Dr. T. H. Middleboro, of Owen Sound; chemistry, theoretical and practical, and toxicology, Dr. A. R. Pyne, of Toronto; materia medica and pharmacology, Dr. James S. Sprague, of Stirling; medical jurisprudence and sanitary science, Dr. D. J. Sinclair, of Woodstock; diseases of women, Dr. R. E. Webster, of Ottawa; diseases of children, Dr. James Newell, of Watford; pathology, therapeutics and bacteriology, Dr. Isaac Wood, of Kingston; homeopathic examiner, Dr. W. A. McFall, of Peterboro'.

ITEMS OF INTEREST.

Additional Successful Candidates.—The following are additional successful candidates of the College of Physicians and Surgeons of Ontario: Primary—A. W. McPherson, Peterboro'; G. R. Reid, Kingston. Intermediate—V. W. Stewart, Toronto; A. W. Keene, Essex. Final—J. H. Bennett, Oshweken; C. W. Clark, Picton.

New Coroners.—The following appointments, not hitherto mentioned, are announced in the current *Gazette*: Charles Norval Laurie, M.D., Port Arthur, Associate Coroner for the District of Thunder Bay; James Anderson, M.D., Hamilton, Associate Coroner for the County of Wentworth; William Hamilton Merritt, M.D., St. Catharines, Associate Coroner for the County of Lincoln.

Dr. Macdonald, President of the Ontario College of Physicians and Surgeons.—At the annual meeting of the Council of the College of Physicians and Surgeons of Ontario last month, the following officers were elected for the ensuing year: Dr. A. A. Macdonald, Toronto, President; Dr. W. H. Moorehouse, of London, Vice-President; Dr. R. A. Pyne, Registrar; Dr. H. Wilberforce Aikins, Treasurer; Dr. J. C. Patton, Auditor.

New House Surgeons for the Toronto General Hospital.—At a special meeting of the Board of Trustees of the General Hospital, held July 11th, Mr. J. W. Flavelle presiding, the house surgeons for 1905-6 were appointed, their names being Drs. Fred Brodie, Alfred McNally, W. A. Burr, T. Alexander Davies, Allan Kinghorn, E. C. Burson and A. G. McPhedran. The externe physicians have not yet been appointed. Dr. J. W. Rowntree, who has been filling the position (as a temporary expedient) of medical superintendent, resigned his duties two weeks ago. Dr. J. N. E. Brown, who till recently practiced in the Yukon, and filled a responsible Government position in Dawson City, was appointed successor to Dr. Charles O'Reilly on the 21st ult. We wish Medical Superintendent Dr. Brown every possible success in his new sphere of work.

Addition to St. Michael's Hospital.—Funds are being raised for the erection of a new $50,000 wing to St. Michael's Hospital. The building is to be located across Victoria Lane, from the main hospital. The work would be commenced immediately, but that the hospital authorities are in hope of obtaining from the city that portion of the lane adjoining the hospital. A direct communication from the old building to the new is desired on each floor, and for this reason they wish either the lane or the right to erect bridges over it from one part of the building to the other. The present buildings will accommodate 50 surgical and 180 medi-

cal patients, but two-thirds of the medical patients are in the old north wing, formerly a church, and but poorly ventilated or protected from fire. When the new wing is built the northern part will be occupied by the attendants, who now board on Victoria Street.

Deputation of Medical Profession Wait on Premier.—In pursuance of the views set forth by Dr. Campbell Meyers at the recent meeting of the Ontario Medical Association, to the effect that there should be some accommodation in the city hospitals for poor people with insane tendencies, a large deputation, consisting of more than 50 doctors and some members of the medical faculty of Toronto University, waited on the Premier recently. They made a plea for legislation of some kind, the doctors of the city being all in favor of some better provision being made for the indigent insane. Dr. Meyers' idea is that there should be some better way of handling those in the incipient stages of insanity. As it is at present, the patient is immediately hurried off to an asylum or allowed to roam around until he does some harm or is so far gone that he must be placed under restraint. For the rich man there is the sanitarium, where he may be treated while the disease is young. For the poor man there's only the mad-house. It is to be earnestly hoped that Premier Whitney will at once take steps to remedy this state of affairs, and Dr. Meyers is to be congratulated upon bringing this very important subject to the front.

Visit of British Medical Association to Toronto in Prospect.—At a meeting of representative medical men of Toronto, held at the Medical Library, Queen's Park, on July 13th, a resolution was passed, on the motion of Dr. R. A. Reeve, seconded by Dr. Grasett, inviting the members of the British Medical Association to visit Toronto next year as the guests of the medical men of the city. Dr. A. J. Johnson presided over the meeting, and the object of the gathering was explained by Dr. Reeve. The subject had arisen previously at meetings of the Canadian Medical Association and the Ontario Medical Association, and it was again mentioned at the meeting of the latter body held in June. At the meeting the whole question was thoroughly discussed, and in addition to the resolution already referred to, others asking for the co-operation of other medical associations were also passed. The meeting, of which Dr. Thistle acted as Secretary, was adjourned until a reply is received from the British Association. The invitation, we are glad to say, goes from the profession as a body, and not from any sect or teaching body, and we feel sure that, in case of an acceptance, the British Medical Association will receive a most hearty reception in Toronto.

Correspondence.

The Editor cannot hold himself responsible for any views expressed in this Department.

CANADIAN MEDICAL AUTHORS.

To the Editor of The Canadian Journal of Medicine and Surgery :

Dear Sir,—In your June number, A.B., in reviewing Dr. Adam Wright's "Text-Book of Obstetrics," says: "With the exception of a few small handbooks on various subjects, this is the first work of importance written and published by a Canadian." Our businessmen, in recent years, have manifested a most commendable spirit in labeling their goods, "Made in Canada." Only a short time ago, another Canadian, Dr. Price Brown—a citizen of Toronto, too—wrote and published a "Text-Book on Diseases of the Nose and Throat," a work of such scientific and literary excellence as to give its author very high rank amongst medical writers. Why should we not emulate our manufacturers, and not, as some of us do, scarcely try to conceal a sneer at any degree, book or author, not of the Mother Country? Canadians are not wanting in loyalty to Britain, but they owe it to their own self-respect to recognize Canadian merit and scholarship. It is true we have not as yet a very long or large list of native authors, but, instead of completely ignoring those we have, would it not be more patriotic and just to be governed by the advice of the old Latin maxim, "Non numero sed pondere æstimanda sunt," when speaking of the medical authors "Made in Canada"?

8 O'Hara Avenue. J. Hunter, M.D.

FIFTEENTH INTERNATIONAL MEDICAL CONGRESS.

To the Editor of The Canadian Journal of Medicine and Surgery :

Dear Sir,—Anticipating that a large number of American physicians will attend the Fifteenth International Medical Conference to be held in Lisbon, Portugal, April 19 to 26, '06, the undersigned has completed arrangements for the chartering of a first-class vessel, upon which the American delegation may sail as one party. In this way better accommodations can be secured at a more reasonable price, the social features of the trip will be enhanced, and each individual surrounded by those who are personally congenial.

Additional security, and consequently added pleasure will be obtained as the party will be in charge of a traveling conductor who is thoroughly conversant with the language and the customs of the countries to be visited en route.

As there will doubtless be some diversion as to the choice of the routes, depending on individual inclination and previous opportunities for foreign travel, a number of returning routes have been selected, the itineraries of which, although separate from the journey proper have been arranged so that the principal points may be visited together. Those who desire may include a Mediterranean excursion. Madrid, Corunna, Vigo, Aporti, the Escorial, Toledo, Seville and Cordova may be visited, as well as an opportunity to return leisurely through Italy, France and Great Britain.

Hotel reservations for the party have also been arranged for in the best hostelries of Lisbon, and in addition a number of "floating hotels" will be anchored in the Tagus during the entire session of the congress, thus enabling visitors, who desire, to enjoy all the comforts of a superb hotel system on the water.

Round trip rates from New York will run from $275 up, according to the tour selected, including all expenses.

Itineraries of the various tours are being prepared, and will soon be ready for distribution. It is important that all who contemplate taking this trip should register at once, so that no disappointment in hotel reservation may be experienced. The final arrangements will, as heretofore, be in the hands of the well-known conductors, Thos. Cook & Sons, which insures perfect and complete service for the trip, and relieving the passenger from all annoying details incident to the voyage. Those delegates who attended the last Congress in Madrid, sailing from New York on the "Princess Irene," will remember the excellent service afforded them.

Dr. John H. Musser, Philadelphia, is chairman of the National American Committee, and Dr. Ramon Guiteras, 75 West 55th Street, New York City, is the secretary, to whom all applications for membership and communications in regard to the presentation of papers, should be addressed.

Further information, reservations, and copies of itinerary may be obtained by addressing the last-named undersigned:

Lewis S. McMurtry, M.D., Louisville.
Nicholas Senn, M.D., Chicago.
J. D. Griffith, M.D., Kansas City, Mo.
W. F. Southard, M.D., San Francisco.
Frank P. Norbury, M.D., Jacksonville, Ill.
W. T. Corlett, M.D., Cleveland, O.
C. H. Hughes, M.D., St. Louis, Mo.
R. T. Morris, M.D., New York City.
A. Vander Veer, M.D., Albany, N.Y.
Jos. M. Mathews, M.D., Louisville.
J. B. Murphy, M.D., Chicago.
Jas. E. Moore, M.D., Minneapolis, Minn.
Chas. Wood Fassett, Krug Park Place, St. Joseph, Mo.

The Physician's Library.

BOOK REVIEWS.

The Doctor's Recreation Series. The Inn of Rest: divers episodes in hospital life, relative to the doctor. the nurse the patient. Edited by Sheldon E. Ames. New York, Akron (Ohio), Chicago: The Saalfield Publishing Co. 1905.

This is another volume of the Doctor's Recreation Series, about which we have taken occasion to speak several times already. It may be said to be a worthy companion of the preceding volumes, and contains many sketches that are instructive, amusing and restful. The illustrations are four in number. The one occupying the frontispiece is entitled "Before the Operation," and is excellent; a second, of Laennec, on page 82, must be, of course, from an old engraving and is a little disappointing; the third, showing "Penel at La Salpetriere," and the last "Pare," are particularly good.

There are seventeen chapters by different authors, one of the best being that by Walt Whitman, entitled "Hospital Scenes and Persons." Anna H. Drury contributes about twenty or more pages on "Nurse and Doctor," and A. B. Ward a chapter on "The Invalid's World,"—both being most enjoyable.

Clinical Treatises on the Pathology and Therapy of Disorders of Metabolism and Nutrition. By Prof. Carl von Noorden, Physician-in-Chief to the City Hospital, Frankfort a. M. Authorized American edition, translated under the direction of Boardman Reed, M.D., Professor of Diseases of the Gastro-Intestinal Tract, Hygiene, and Climatology, Department of Medicine, Temple College; Physician to the Samaritan Hospital, Philadelphia, etc. Part VI., Drink Restriction (Thirst Cures), particularly in Obesity. By Professor Carl von Noorden and Dr. Hugo Salomon. New York: E. B. Treat & Co. 1905.

For many years past we have been in the habit of thinking that the majority of people drink too little water. This little book brings strongly before us the fact that in a great many instances at least, the opposite condition certainly exists. It is pointed out that this is due to the fact that the drinking of large

quantities of hot water and the douching out of the large intestines has been overdone. Not only is this the case, but it is shown that both the medical men and the public have forgotten that every mouthful of water that is taken into the stomach imposes an added amount of effort on the heart and kidneys particularly, before it is got rid of. Many victims of dilated heart, dilated stomach, and of Bright's disease, practically have been encouraged to drink themselves to death.

Professor von Noorden makes a very strong effort to point this out in this book, and everyone that reads it must feel that it is quite time that the possibility of water-logging a patient should be taken into consideration. A. J. J.

Modern Clinical Medicine. Infectious Diseases. Edited by J. C. Wilson, A.M., M.D., Professor of Medicine, Jefferson Medical College; Physician-in-Chief to the German Hospital, Philadelphia; Physician to the Jefferson and Pennsylvania Hospitals, etc. An authorized translation from *Die Deutsche Klinik,* under the general editorial supervision of Julius L. Salinger, M.D., with two colored plates and sixty illustrations in the text. New York and London: D. Appleton & Co. 1905.

It seems to us to have been a most praiseworthy move on the part of D. Appleton & Co. to give the profession on this side of the Atlantic the advantage of being able to procure an English translation of *Die Deutsche Klinik*, a work which represents the combined labors of the foremost medical men in the Fatherland. *Die Deutsche Klinik* undoubtedly stands as the most recent collaboration of scientific medicine in Germany, a country that has been for years in the vanguard of not only bacteriology, but has done so much to advance, especially, laboratory research. The English edition of this splendid work will be welcomed on our shores, the arrangement being most convenient, and the work, in its entirety, well suited for every-day reference.

Malformations of the Genital Organs of Woman. By C. H. Debierre, Professor of Anatomy in the Medical Faculty at Lille. With eighty-five illustrations. Translated by J. Henry C. Simes, M.D., Emeritus Professor of Genito-Urinary and Venereal Diseases in the Philadelphia Polyclinic. Pp. 182. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1905.

This little monograph is of value because it certainly accomplishes what the translator claims in filling "a void in English medical literature." The title of the work indicates its scope, and the author has presented his subject in a manner which is at once

interesting and instructive. No extended review is necessary, except such as is required to commend it to those readers who are interested in the subject. That the treatise is written in a true scientific spirit may perhaps best be indicated by quoting the last paragraph in the book, which reads thus: "Our general conclusion from the study of the anomalies of the genital organs of woman is that in nature nothing is unusual, and our ignorance alone gives power to the fetich gods and manatous of all times and of all countries." A. P.

Enlargement of the Prostate. Its history, anatomy, etiology, pathology, clinical causes, symptoms, diagnosis, prognosis, treatment, technique of operations, and after-treatment. By John B. Deaver, M.D., Surgeon-in-Chief to the German Hospital, Philadelphia, assisted by Astley Paston Cooper Ashhurst, M.D., Surgeon to the Out-Patient Department of the Episcopal Hospital; Assistant Surgeon to the Orthopedic Hospital, and to the Dispensary of the German Hospital. Illustrated with 108 full-page plates and a colored frontispiece. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut St. 1905.

Though so far we have but had time to make a somewhat careless perusal of this, the most recent work from the pen of the well-known John B. Deaver, we think it will not be long before the volume is in the hands of most active surgeons.

It is only during the last year or two that the prostate gland has been receiving any notice, as up till quite recently such a thing as surgical interference with that organ was considered almost out of the question. For this reason, therefore, if for no other, Dr. Deaver's volume will be received with more or less alacrity, the author having had considerable experience along this line of work. The book may be said to cover not only the author's views, but those of other surgeons as well, and is, therefore, by no means biased or one-sided. It covers pretty well all the literature dealing with diseases of this gland, and is freely illustrated. The volume, as a piece of book-making, could hardly be excelled.

W. A. Y.

Report of the Commission for the Study and Treatment of "Anemia" in Porto Rico. Authorized by Act of the Legislative Assembly. Approved Feb. 16th, 1904. Respectfully submitted to Hon. Beekman Winthrop, Governor of Porto Rico, Dec. 1st, 1904.

As intimated in the title, this is the report of the commission appointed about a year and a half ago by the Government of Porto

Rico, for the study and treatment of anemia, so very prevalent throughout that island. The pamphlet is well worth sending for, and a copy can be procured by any physician sending his card to the M. J. Breitenbach Co., 53 Warren Street, New York City. "Tropical Anemia" is accountable for a very large percentage of the death rate in Porto Rico, and it was a very wise step on the part of the Governor to have a scientific investigation made into the causation of the disease, which, for many years, has been carrying off such a large number of the inhabitants. The pamphlet gives quite a number of clinical histories in detail, including the previous history of the patients, the treatment adopted, and results It is interesting and instructive to find that Gude's Peptomangan proved itself to be curative in a large number of cases. This is worth remembering, as by proving effective in so severe a type of the disease in question, it seems to be a preparation worthy of more general recommendation by physicians. It is seldom that one hears of any proprietary preparation receiving such a proof of its efficiency. It is noticeable that the first twenty-four pages of the pamphlet are taken verbatim from the official report issued by the government.

Acute Contagious Diseases. By William M. Welch, M.D., Diagnostician to the Bureau of Health and Consulting Physician to the Philadelphia Municipal Hospital for Contagious and Infectious Diseases; for thirty-three years Physician-in-Charge of the Municipal Hospital; Fellow of the College of Physicians of Philadelphia; and by Jay F. Schamberg, A.B., M.D., Professor of Dermatology and all Infectious and Eruptive Diseases, Philadelphia Polyclinic and College for Graduates in Medicine; Assistant Diagnostician to the Bureau of Health, and Consulting Physician to the Municipal Hospital for Contagious and Infectious Diseases; Fellow of the College of Physicians of Philadelphia; Member of the American Dermatological Association. Illustrated with 109 engravings and 61 full-page plates. Philadelphia and New York: Lea Brothers & Company. 1905.

The writers of this book have succeeded in their endeavor to present a practical treatise on acute contagious diseases. The diseases, however, that are dealt with, constitute a rather small group, and are those that they have most frequently come in contact with in the Municipal Hospital of Philadelphia. The book, therefore, though large, does not include, by any means, what we are in the habit of considering all the infectious diseases, although it does contain, perhaps, the most important.

A large amount of space has been devoted to the subject of smallpox, and particularly to its diagnosis. This is a very strong

feature in this book, and one that is of very great value to the student and practitioner. Smallpox is a disease which many practitioners and students do not often come in contact with, and the writers have made a thorough study of nine thousand cases of this disease, and illustrated their article with many photographs of patients who have been under their care.

Chickenpox, scarlet fever, measles, rubella, typhus, and diphtheria are all described in a most thorough manner, and, I think, may be considered absolutely up-to-date.

The book is one of undoubted value to the practitioner and possibly also to the student; certainly to the student who is coming into contact with the infectious diseases described. To the average student, however, the descriptions are so elaborate, and the distinctions are so minute, that it might be found somewhat difficult to master all the detail. A. J. J.

Sandy. By Alice Hegan Rice. Toronto: William Briggs, Publisher.

A bright story of an Irish lad, a young Patrick in very truth, with his head full of poetry, a temperament as variable as the wind, and with a smile like a sunbeam. He lauds in America and makes a career for himself, so the reader follows him with interest, and many a laugh, where'er his changeful lot is cast, until the book closes over on a happy wedding day.

W. A. Y.

A Reference Handbook for Nurses. By Amanda K. Beck, of Chicago. 32mo volume of 150 pages. Philadelphia and London: W. B. Saunders & Company. J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto. 1905. Bound in flexible Morocco, $1.25 net.

This little book contains information upon every question that comes to a nurse in her daily work, and embraces all the information that she requires to carry out any directions given by the physician; it includes also instructions for all emergencies that may arise before or between visits of the physician. It is of immense value to student nurses because it contains all the material they are expected to commit to memory from notes. Physicians, too, will find the book of value, because it contains exact details as to solutions, foods, dosage, poultices, applications, etc. There are also articles on bacteriology, massage, medical electricity, obstetrics, care of infants, and such like information. The mechanical get-up of the book is both convenient and attractive. It is of a size to fit the pocket, and is neatly bound in flexible Morocco.

W. J. W.

Saunders' Pocket Medical Formulary. By William M. Powell, M.D., author of "Essentials of Diseases of Children"; Member of Philadelphia Pathological Society. Containing 1831 formulas from the best known authorities. With an Appendix containing Posological Table, Formulas and Doses for Hypodermic Medication, Poisons and their Antidotes, Diameters of the Female Pelvis and Fetal Head, Obstetrical Table, Dietlist, Materials and Drugs used in Antiseptic Surgery, Treatment of Asphyxia from Drowning, Surgical Remembrancer, Tables of Incompatibles, Eruptive Fevers, etc., etc. Seventh Edition Revised. In flexible morocco, with side index, wallet and flap. Philadelphia and London: W. B. Saunders & Co. 1905. Canadian Agents, J. A. Carveth & Co., Limited, 434 Yonge St., Toronto. $1.75 net.

When a work has reached its seventh edition there can be no doubt of its practical usefulness. And it is not at all surprising to us that Saunders' Pocket Medical Formulary should have attained such popularity, for we know of no similar work containing so much useful, practical, and accurate information in so small a compass. In this new seventh edition there have been added over 460 new and valuable formulas, selected from the works and private practices of the best authorities. The editor has shown rare discretion in the elimination of many obsolete formulas, inserting in their place newer and better ones, embodying a large number of approved new remedies. In its new edition this Formulary is thoroughly representative of the most recent therapeutic methods, and its convenient size and mechanical get-up make it the most desirable work of its kind on the market.

Mucous Membranes, Normal and Abnormal. Including Mucin and Malignancy. By Wm. Stuart-Low, F.R.C.S., Assistant Surgeon Central London Throat Hospital, Hon. Sec. British Laryngological Association, Fellow London Laryngological Society. London: Bailliere, Tindall and Cox, 8 Henrietta Street, Covent Garden. 1905.

Systematic investigation in this department of physiology and medicine has been much neglected, and yet what a large percentage of the ailments we meet with arise therefrom.

The author warns us against over-use of the douch, spray and other means employed for washing away that important natural protective, viz., mucin.

Light is thrown on the connection of syphilis and cancer, and the association of syphilis and cancer with hypomyxia. The reader will find many other interesting problems discussed, and a study of this important subject will richly repay the practitioner in his daily medical practice. W. H. P.

Maternitas. A book concerning the care of the prospective mother and her child. By CHARLES E. PADDOCK, M.D., Professor of Obstetrics, Chicago Post-graduate Medical School; Assistant Clinical Professor of Obstetrics, Rush Medical College. Chicago: Cloyd J. Head & Co., 40 Dearborn St.

This manual, while thoroughly scientific in its teaching, tells its story simply and fully, omitting nothing of importance.

The methods taught can be very easily understood and carried out by mother and nurse.

It should appeal strongly to both prospective mother and nurse, as its advice is based on good common-sense principles, but does not encroach on the domain of the medical attendant, being mainly a preparation to impress on the mother the necessity for co-operation with her physician. A careful perusal will be enjoyed by all practitioners of obstetrics. W. H. P.

Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M.D., assisted by H. R. M. LANDIS, M.D. June 1, 1905. Philadelphia and New York: Lea Brothers & Co. $6.00 per annum.

The present volume is quite up to the usual high standard of excellence maintained by this journal. It contains review articles on hernia, surgery of the abdomen, exclusive of hernia, gynecology, diseases of the blood, diathetic and metabolic diseases, diseases of the spleen, thyroid gland, and lymphatic system, and ophthalmology.

A paper by H. J. Stiles, of Edinburgh, on the operative treatment of hernia in infants and young children, is very thoroughly reviewed. Stiles does not advocate the use of the truss with children, or even with very young infants, but prefers operative treatment in almost all cases. The writer is more conservative, and agrees with Dr. Ganno and others, who think that a very large percentage of children under three years of age may be completely cured of hernia by means of the truss. Many varieties of operations for hernia are discussed.

Operations on the stomach for various diseased conditions are now being discussed by journals and medical societies generally. Recent articles describing these are very thoroughly reviewed.

In the section dealing with gynecology, considerable space is given to cancer and myoma uteri. The short review of the literature dealing with the ravages of gonorrhea in women is opportune, and the opinions expressed by the writer are conservative.

There is not a single dull article in the whole volume.

A. E.

We are in receipt of the 26th edition, Catalogue of Batteries and Electro-Therapeutical Specialties, as published by the McIntosh Battery and Optical Co., of Chicago, Ill. It is a very complete list indeed, and goes to show that this firm are determined to occupy only the vanguard in the manufacture of this line of goods.

Merck's 1905 Manual. (Third edition.) The third edition of Merck's excellent Manual of Materia Medica has just recently come to hand. A year or so ago we took occasion to pronounce upon the second edition of this booklet, and we said then that it was quite a valuable guide to the newer pharmaceutical preparations, and worth procuring. The third edition is considerably larger. It has been thoroughly revised and almost entirely rewritten. It might be called a handy reference manual for the physician for pocket use.

Cunningham's Anatomy. Messrs. William Wood & Company are pleased to announce a forthcoming new edition of Cunningham's Text-Book of Anatomy. During the two years of this book's existence, it has sprung into universal favor and is now the standard text-book in a majority of the prominent medical schools of this country. Cunningham's Anatomy is the most recent text-book on the subject, and from opinions given by the leading teachers in America, is undoubtedly the best work now in the field. That this fact is realized is shown by the strenuous efforts which are being put forth by publishers of competing books, not only in revising their text-books, but in the revision, striving, so far as possible, to imitate the arrangement and style of Cunningham. Cunningham is unique, in that it is a text-book of anatomy *written by anatomists.* The illustrations are new and original, having been drawn and engraved especially for the book. Their execution is beautiful, and, being genuine hand engravings upon wood, they possess the artistic charms and graphic quality that no mechanical process can give. Many of them are in colors, in some cases five or six paintings having been employed. In the second edition a large number of colored illustrations have been added, and new drawings showing the insertions of the muscles. The section on the nervous system has been practically redone and many new figures have been prepared for it. The entire work evidences careful revision, amplification and the correction of many typographical and other errors, which crept into the first edition. An index of seventy-three double-column pages makes the vast contents of the book readily accessible. There is good reason to believe that within a very short time the sale of this book will exceed the combined sale of all other text-books on anatomy.

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Original Contributions.

A PLEA FOR A PROVINCIAL MINISTER OF HEALTH.*

BY CHARLES A. HODGETTS, M.D., L.R.C.P. (LOND.),

Deputy Registrar-General; Secretary of Provincial Board of Health of Ontario; Member of the Royal Sanitary Institute of Great Britain, etc., etc.

Introductory.—This paper has been prepared at the request of the committee; it simply gives personal opinions upon the subject, and in no way are they to be construed as expressing those of my colleagues on the Provincial Board of Health or reflecting the opinions of any with whom I am officially associated.

Mr. President and Gentlemen,—It is the prerogative of statesmen to guide the national machine, and for this purpose the government of the province is controlled by a premier, who is president of the council, and an executive council of seven members, to each one of whom is delegated the special control of a particular class of official work, which forms a department. Thus we have the following seven divisions in this province: (*a*) Department of Attorney-General, (*b*) Department of Provincial Secretary, (*c*) Department of Treasurer, (*d*) Department of Crown Lands (now Lands and Mines), (*e*) Department of Agriculture, (*f*) Department of Public Works, and (*g*) Department of Education—an addition of three since Confederation, viz., President of Council (Premier), Public Works and Education. That these divisions of the work of government are justified, nearly all are convinced; the several ministers are essential for the efficient carrying on of the government of a prosperous and developing province, and the additional portfolios thus far made in the Provincial Cabinet have been created to meet the increased needs

*Read before the Ontario Medical Association, Toronto, June, 1905.

of the country, consequent upon its development. No one who has any knowledge of the demands made upon the Ministers of the Crown in the past, can question the appointment of a Minister of Education, nor that of Public Works, much less the recent change which placed the Premier of the Province in a position where he could guide our destinies as a Province, free from the cares incident to the management of a department.

Of the present ministers of the Crown, the Hon. the Provincial Secretary is the one upon whom chiefly rests the responsibility of those branches which appertain to the health of the people, viz., (1) Hospital and Gaol Inspection, (2) Hospitals for the Mentally Diseased, (3) Provincial Board of Health, (4) Vital Statistics (Registrar-General), and (5) Neglected Children. In addition to these the following might be placed in the same category, viz., Factory Inspection, which is delegated to the care of the Minister of Agriculture, though just what relationship can be claimed officially to exist between the tilling of the ground or the breeding of cattle, and the supervision of factories, their general sanitary arrangement, and the method adopted to protect the life of the artizan, I have endeavored to ascertain, but so far without success.

The Provincial Secretary, in addition to performing the functions of a Minister of Health, is called upon to administer the License Branch, which, of itself, calls for a considerable portion of his time. He is also the Minister of the Crown, to supervise the registration and inspection of incorporated companies, the issuance of marriage and automobile licenses, and performing the thousand and one duties incident to the office of a Secretary of State.

And as to the demands made upon this minister, one has but to visit his office, when it will be found that the daily number of visitors far exceeds that of any other of his colleagues, and the questions upon which he has to decide are as diverse as one could wish them to be; and from the many branches under his care, it can well be imagined that a large proportion of it must relate to subjects more or less of a medical character.

It must not be supposed that this vast amount of medical work has always been in existence; indeed, it is quite the contrary. It can readily be supposed, how, in 1867, when there were only two hospitals for the mentally diseased, with 951 patients, the work incident to what is incorrectly called Asylums, could be easily taken up by the Provincial Secretary; but in the nearly four decades since Confederation, there has not only been expansion in this particular branch of the service, but the same may be said of every branch of the department.

The hospitals just referred to have increased to nine, with a

present population of 5,581, and since 1867 over 20,000 patients have been admitted.

Similarly, the work under the Charity Aid Act has grown year by year since 1870, when the annual grant amounted to $40,510.00, distributed among 8 Hospitals, 2 Refuges, 10 Orphan Asylums, or 20 institutions in all; while in 1904, the grant amounted to $191,217.01, and the number of institutions inspected was: 61 Hospitals, 41 Refuges, 32 Orphan Asylums, or 134 in all.

As regards the two branches which come directly under the writer's notice, viz., that of Board of Health and Registrar-General, great advances have been made, and the work done to-day requires a staff double that of ten years ago, while the work has increased proportionately.

An idea of the importance of these branches doing medical service may be found, when it is stated that out of a total expenditure of $126,304,750.00, since Confederation, there had been expended in maintenance for

Hospitals for the Mentally Diseased	$21,535,083.05
Hospitals and Charities	4,203,367.86
Total	$25,738,450.91

while during the same period the expenditures under the following heads have been for

Education	$20,992,576.39
Administration of Justice	11,448,851.91
Agriculture	5,418,386.76

or to put it concisely, allowing for expenditures in the other branches of a medical character, more than one-fifth of the total expenditure of the province since Confederation has been in branches which have to do with the health of the people of this province.

It must be further remembered that the expenditure on Capital account for the Hospitals for the Mentally Diseased has been $4,784,680.48, or a total expenditure on this account alone of over twenty-five millions of dollars.

To show that this proportion of one-fifth of all expenditures devoted to branches that may be classed under the title of "Health," is not too high, the following figures, taken from the Public Accounts of 1904, are submitted in detail. Summarized, they are as follows:

Civil Government	$ 61,424.11
Public Institutions	951,434.04
Hospitals and Charities, etc	236,592.27
Public Buildings	195,425.27
Total	$1,444,876.17

which, compared with the total expenditures, $5,267,453.02, gives more than one-quarter being appropriated for medical services during that year.

Thus far, the importance of the medical work of the Provincial Government has been discussed from the financial standpoint, and this alone would constitute good grounds for advocating the still further enlargement of the Provincial Cabinet, by the creation of a minister who would have for his especial care the branches mentioned, which collectively form so important a part of the work of the Provincial Government; work which requires special professional attention, as does that of the Department of the Attorney-General, Agriculture, and Lands and Mines, over the former of which is a gentleman possessing high legal ability, while the Minister of Agriculture is a graduate of the Agricultural College, and a practical farmer, and the Minister of Lands and Mines possesses a practical knowledge of both branches over which he presides.

If further arguments of a financial nature are required, it may be noted that the revenue from the provincial hospitals alone is nearly $100,000 yearly.

The magnitude of the work may further be obtained from the fact that 37 medical men are upon the staff, and 972 inspectors, clerks and other officers, or 1,009 officials, all engaged in work which has for its special object the health of the people.

There are, however, other and more important points to be considered, which would accentuate the plea more than the financial, although this would be thought sufficient reason by any corporation or business house to appoint a manager at an annual cost of $4,000.00.

The Minister of Health in this Province should be in the same position, as regards the work of the department, as the Minister of Militia and Defence of the Dominion, who now discusses with his Council, composed of the heads of most of the branches, the work of the department; though it is to be regretted that the Director-General of the Medical Branch finds no seat in that council. He could and should take united counsel with his deputies and inspectors, also with the Superintendents of the Provincial Hospitals, and thus in conference not only obtain the medical counsel so essential for the successful administration of the hospitals, and all that appertains to the medical service, but also bring together officers who are comparative strangers to each other, and create in them a spirit of emulation in the discharge of their public duties. The defects of this particular hospital or branch would be shown to contrast with the successful workings of a sister hospital or branch, acting upon slightly different methods. Thus, too, would be worked out a system of internal economy in the management of public institutions and departmental branches.

Referring more particularly to the Hospitals for the Mentally Diseased, the possibilities under a departmental head would be of very material advantage. A periodic conference with the minister, either at the office of the former or at one or other of the hospitals, would, to a great extent, serve the purpose of a commission; indeed, I am of the opinion it would result in far more practical results than the American system of State commissioners, for this principle of conference could be extended to the officers who have the control of the purchasing of supplies, etc. It would be more within the bound of possibility, that some system of medical service could be established, whereby only those trained in the specialty of nervous diseases would receive promotion, and a young man might justly expect when once he had launched out into this important specialty, he might some day hope to qualify for the position of superintendent, and not be kept at the low level of a first assistant. A grade, too, of trained nurses, would be a possibility throughout the service, and attention given to the study of a new departure in Preventive Medicine, viz., the study and care of those neuroses which, if neglected, end in a condition which lead to an incurable mental derangement. And lastly, some arrangement could be made for the better study of nervous and mental diseases, both clinically and pathologically, for students as well as for those who desire to pursue the study of nervous and mental diseases as a specialty. Upon this minister would devolve the oversight of the thousand or more estates of the mentally incurable who are in the provincial hospitals, a matter of considerable interest both to the province and the heirs of those estates. A special legal officer should be attached to the department for this purpose, and the matter removed from the hands of the Inspector, who has plenty to engage his attention in the inspection of the asylums themselves.

The inspection of hospitals and charities is one upon which depends the expenditure of over a quarter of a million annually, and with the growth of the province and the increase of hospital accommodation, requires the most careful and painstaking oversight—characteristics which mark the work of the present inspector. But how much greater would be the impetus given to his work if it were placed under a minister whose time was given to dealing with such matters, and where direct business supervision would be directed to the dispensing of a charity, and at the same time the inspection of gaols was transferred from the department to that of the Attorney-General, to which it properly belongs?

In respect to preventive medicine, the advantages would be an immediate oversight by a Minister of the Crown of all that appertains to the spread of contagious diseases, and the installation

and annual inspection of public sewerage and water systems, he discharging the duties at present placed upon the Provincial Board of Health, and for which purpose they meet quarterly. Given a minister with his medical inspector, sanitary engineer, sanitary inspector, bacteriologist and chemist, all matters could be dealt with as they came along, with the minimum amount of delay. With the several reports of the experts engaged in the department, greater expedition and more correct decisions would be arrived at than under the existing system, and in this abolishing of the Provincial Board of Health, it may be stated incidentally, half the salary of a minister of health would be provided for.

The future, as regards public health, will make greater demands upon the provincial authorities than have been made in the past; for, with the increase of population in our cities and towns, greater oversight will have to be exercised over not only the inception of public systems of sewage and water supplies, but it will require, on the part of the province, an annual inspection whereby contamination of the latter by the former will be checked and prevented.

The problem of sewage disposal in rural districts is as important as that of urban municipalities, for enteric fever is as rife in the former as in crowded cities, if not more so. It is to the provincial authorities that the study of the disposal of manufacturing wastes and domestic sewage must be relegated; and this will involve the expenditure annually of money for the study of this important question, for experiments must be carried on constantly, day by day, from year to year; present methods must be studied and new ones experimented with, the problem being an ever-changing one. But the work of public health does not end here. Laboratory tests of anti-diphtheritic and other serums must be made. The questions of sanatoria for consumptives, and the allocation of the work to be done by charity, the municipality, the state and private institutions, with the object of preventing overlapping, duplication, etc., require careful consideration.

The providing of preventive treatment for those neuroses which are now recognized as the prelude to chronic mental diseases, is a large and important question, as thereby the increase in chronic cases may be largely prevented, and much suffering and expense be saved both to the individual and to the state.

The study of cancer, too, is one that might well be taken up by a department of health.

The factory inspection of the province would be placed in a much better position, for a large portion of its work relates to the adoption and enforcement of sanitary laws, with which the present inspectors have but a passing knowledge. Given a union with the medical inspector and sanitary inspector of a department of health,

there would be a still greater improvement in our factories and work-shops, and the public would be getting a better service without any additional expenditure of money.

Before concluding, one other reference will be made, and that relates to the question of immigration, and the housing of the foreign immigrant population. We want immigrants, but there should be some provincial oversight of the physical and mental condition of those who seek a home in this province, other than that established by the Dominion Government, for in case of illness, especially of a chronic nature, they too often become a burden upon the province, in proof of which I would quote the statement of Dr. C. K. Clarke, Superintendent of the Kingston Hospital, who says: "Kingston is, as you know, a long-settled district, unaffected to any extent by immigration, and yet within the last ten years the government has had to contribute no less than $72,875.83 for the maintenance of defective immigrants, who would not have been permitted to obtain a foothold here if satisfactory alien laws had been in force. There were sixty-three of these defectives, seventeen of whom still remain with us." The problem, too, of the housing of this foreign element, is one that requires attention, for it is manifestly wrong, both on sanitary, economic and social reasons, that twenty or thirty should live in a house capable of only holding a family of six or eight; these things should not be, and they can best be considered and dealt with under a minister having for his especial care the *health* of the people, health which is the real wealth, unseen but felt, and without which the accumulated wealth of the multi-millionaire is as nothing.

In conclusion, it may be advanced that the investment of five millions of capital, the expenditure of more than a million and a quarter of dollars annually, with a revenue of more than one hundred thousand dollars, and the supervision directly and indirectly of more than one thousand persons, is a branch of a business or public service requiring a large amount of professional skill and executive ability, one, too, in which the work will increase rather than decrease—very strong grounds upon which to base a plea for a Provincial Minister of Health.

MODIFIED MILK VERSUS WHEY MIXTURES.*

BY H. T. MACHELL, M.D., TORONTO.

All of us are agreed, I presume, that human milk is the best form of food for the feeding of infants. As all the constituents of human milk are also found in cow's milk, though in different proportions, it would seem that all one has to do is to make the different ingredients in cow's milk correspond to those in human milk.

It was on this theory that Rotch first began his investigations and finally gave us an insight into milk percentages.

The first requisite for any definite modification of cow's milk for infant feeding is a clear-cut idea of the average composition of human and cow's milk.

Let us first look at the composition of human milk, and then cow's milk.

Human Milk.		Cow's Milk.	
Fat.....	4 per cent.	Fat.....	4 per cent.
Sugar.....	7 "	Sugar.....	4.5 "
Proteids ..	1.5 "	Proteids ..	4 "
Salts	.2 "	Salts	.7 "
Reaction ..	Neutral	Reaction ..	Acid.
Water.		Water.	

The salts we need not consider. They are probably beyond our control anyway. The sugar is practically two-thirds more in human milk. All one has to do is to raise the percentage of milk sugar from 4.5 to 7 per cent. Formula to follow. The proteids have to be reduced from 4 to 1.5 per cent. Simple dilution with water will effect this.

1 dilution	will give	2	per cent.
2 dilutions	"	1.33	"
3 "	"	1	"
4 "	"	.80	"

Thus you see that two dilutions, *i.e.*, two parts water to one part milk, will give about the same proportion of proteids that exist in human milk. While simple dilution reduces the proteids to about the right percentage, it also reduces the fat to an equal extent—an amount altogether too small to keep an infant round, plump and well-padded. Therefore, some other plan than mere dilution will have to be adopted.

The simplest and most practical formula for introducing definite percentages in milk mixtures that I have yet seen is the Scott formula, figured out by Dr. Paul L. Scott, of this city.

*Read before the Ontario Medical Association, Toronto, June, 1905.

Let F. = required percentage of Fat.
" S. = " " " Sugar.
" P. = " " " Proteids.

℞ 16 per cent. Cream..... (F – P) ounces.
New Milk..... (4P – F) "
Milk Sugar..... $\frac{7}{8}$ (S – P) drams.
Limewater..... $\frac{1}{2}$ ounce.
Boiled Water q.s. to make 12 ounces.

E.g., F. 2 per cent. 2 – .6 = 1.4 ounces 16 per cent. Cream.
S. 6 " $\frac{7}{8}$ (6 – .6) = 4.6 drams Milk Sugar.
P. .6 " .6 × 4 – 2 = .4 ounces Milk.
10.2 " Water.
12 ounces.

F. 2.5 2.5 – .8 = 1.7 ounces 16 per cent. Cream.
S. 7 $\frac{7}{8}$ (7 – .8) = 5$\frac{1}{2}$ drams Milk Sugar.
P. .8 .8 × 4 = 3.2 – 2.5 = .7 ounces Milk.
9.6 ounces Water.
12 ounces.

F. 4. 4 – 2 = 2 ounces 16 per cent. Cream.
S. 7. 2 × 4 – 4 = 4 ounces Milk.
P. 2. $\frac{7}{8}$ (7 – 2) = 4$\frac{3}{8}$ drams Milk Sugar.
6 ounces Water.
12 ounces.

For several years I have been prescribing modified milk, and using the Scott formula for introducing various percentages, and believe it to be the simplest formula in use at the present time.

But after all the modification, after one has reduced the proteids to those found in mother's milk and increased the sugar, does it answer the purpose of mother's milk? Scarcely. Is modified milk a success? Yes, certainly, when compared with any of the patent foods which are so conspicuous in the windows of every drug store. Not one of them can replace fresh cow's milk if ordinary care is taken in the modification. Is it satisfactory? Frequently, but not always. Where is the principal difficulty? Without doubt it lies in the proteids. A large number of infants are unable to digest the proteids even if reduced below the proportion found in mother's milk. If persisted in either the infant shrinks in size and weight or it suffers from persistent indigestion, colicky pains, diarrhea, etc., and before long entero-colitis.

Nursed babies, as a rule, increase in weight and plumpness. They seldom have colic, diarrhea or entero-colitis. There must be a reason for this.

Let us look again at the percentage of human and cow's milk, and see if we cannot find another and a greater difference than any of those mentioned.

Human.		Cows.	
F.....	4 per cent.	F.....	4 per cent.
S.....	7 "	S.....	4.5 "
P.....	1.5 { Cas. .6 / Lact. 1.4 or 2 at most.	P.....	4 { Cas. 3.25 / Lact. .75

According to Still, of Great-Ormond St. Hospital, caseinogen means, strictly speaking, the potential curd, the curd-forming proteid before it is coagulated. Casein refers, of ocurse, to the actual curd, the curd which has been formed.

Experience has taught us that one great difficulty in the digestion of cow's milk is the large quantity of curd which is formed when it enters the stomach. A glance at the percentage of caseinogen, which it contains, explains this very largely. This caseinogen forms a curd when mixed with an acid, or with rennet, while the other portions of the proteid, lactalbumen, is only coagulated by heating above 160 degrees F.

Glancing above, one sees that in mother's milk the caseinogen is about one-half the proteid, while in cow's milk it is more than four times the percentage of lactalbumen. In other words, the lactalbumen, which is so easy of digestion, constitutes more than one-half the proteids in mother's milk, while in cow's it is less than one-fourth.

In this relatively large percentage of caseinogen in cow's milk lies the main difference between it and human milk.

Is there a method of correcting this? Yes. How? By converting the caseinogen into casein and utilizing the residue (whey).

With the exception of caseinogen and fat, whey contains all the ingredients originally present in milk, and practically in the same proportions. The fat globules save .25 per cent. to 1 per cent., become entangled in the contracting curds, and are removed from the whey at the same time as the casein is.

The formula of whey then would be:

F.....	.25 per cent. to 1 per cent. (The less the curd is broken up, the less the fat.)
S.....	4.5 per cent.
P.....	Caseinogen, 0 Lactalbumen, .75

Next to the caseinogen the greatest change is in the fat.

Still was the first to note that the higher percentage cream we use the less proteid does it contain. He is able to get a 48 per cent. cream in London, and the amount of proteid contained in that is so small as to be, for practical purposes, a negligible quantity, and may safely be omitted from our calculations. Another advantage in the use of high percentage cream is the very small proportion necessary to be added to any milk mixture.

If then one can, from a high percentage cream, add 1 or 2 or 4 per cent. fat to whey, we are able to produce fresh milk having the same component parts as modified milk, with the exception of the caseinogen. Furthermore, as it is the caseinogen which usually taxes the infant's digestive powers, it would seem a positive advantage to be able to give the infant a food having all the elements of milk save the one which it usually fails to digest.

Thus, theoretically at least, whey, with this high percentage cream, gives us a food which is easier of digestion and better suited to the digestive capabilities of the average baby than modified milk.

Does it do so practically? I believe it does. Is it satisfactory? Yes, if given to a healthy infant or one with only some functional digestive disturbances, or one who has been suddenly removed from the breast and must be fed artificially.

Is it satisfactory if given to an infant who has run the gamut of the commercial foods, occasionally suggested by a neighbor, frequently by a local druggist, and many a time by the physician? Very seldom is any food well tolerated or satisfactory. The reason is not far to seek.

After infants are fed for ten days or two weeks on a food wrong in quantity or quality, or both, a mild catarrhal condition results. If persisted in or changed to another food, which may be equally unsuitable, a genuine entero-colitis may be expected. You all know how intractable this disease is and that it often runs on for months. Instead of having a functional disorder which the laity look upon as a simple or trivial trouble, one has to deal with a subacute or chronic inflammation, which often lasts more months than the functional condition does days.

It is therefore wise, when seeing a case of this kind for the first time to state the actual condition to the mother, so that she will be made to understand that her baby is suffering from and must be treated for entero-colitis, rather than indigestion. If you wish to be quite frank with her, you may tell her the major portion of the treatment must be dietetic.

For about a year we have been feeding most of the infants at the Hospital for Sick Children here on whey mixtures modified to suit the age, weight, condition, etc., of each infant. Since last September practically all the infants in the Baby-ward have been fed on whey mixtures made by the nurses. I am well within the mark when I say that our mortality in that ward has been cut down more than 50 per cent., and among cases of entero-colitis more than 75 per cent. through this means alone.

All winter the Walker-Gordon Laboratory put up whey mixtures for some of my private patients. Shortly before this institution gave up business, the Toronto Medical Society induced the

City Dairy Company to make up whey mixtures on the prescription of physicians. This company is now supplying a number of my patients with whey mixtures, the percentages of which I vary from time to time by telephone.

A few of my patients prefer to make up their own whey mixtures. They make the whey and buy the highest percentage cream, 32 per cent., obtainable in Toronto from the City Dairy.

Some practice and care is necessary in the making of whey, if it is to be of much value. It should be clear or slightly turbid, Before the addition of cream or milk to it, it should be heated to 150-155 F. to destroy the rennet ferment; otherwise, it (the ferment) would coagulate the added cream or milk. If heated above 160 F. the lactalbumen is coagulated. Possibly no harm is done as far as digestibility or nutritive value is concerned, but it does not look tempting.

Sooner or later there comes a time when it is advisable to introduce in the infant's food a certain amount of caseinogen. Those who can digest it make, as you know, better bone and muscle. The introduction of this constituent of milk was always a matter of conjecture until the following formula was worked out two winters ago by Drs. Galley and Canfield, then House-physicians at the Hospital for Sick Children. With this formula it is as easy to write a whey mixture in definite percentages as it is to write a prescription for modified milk by the Scott formula.

$\frac{1}{4}$ F. = No. ounces 32 per cent. Cream.
$\frac{1}{10}$ (S. – 4) = " Milk Sugar.
3 × Cas. = " Whole Milk.
Whey.....ad 10 ounces.
Alkalinity, required percentage.

F. 3 per cent. $3 \div 4 = .75$ ounces = ounces 32 per cent. Cream.
S. 7 " $(7-4) \div 10 = .3$ " = " Milk Sugar.
P. 1 " { Cas. .25 $.25 \times 3 = .75$ " = " Milk.
{ Lact. .75
Whey 8.50 " Whey.
10 ounces.

F. 3.25 per cent. $3.25 \div 4 = .81$ ounces = ounces Cream.
S. 7 " $(7-4) \div 10 = .3$ " = " Milk Sugar.
P. 1.25 " { Cas. .5 $.5 \times 3 = 1.5$ " = " Milk.
{ Lact. .75
Whey = 7.69 = " Whey

F. 2.25 per cent. $2.25 \div 4 = 5.6$ ounces = ounces Cream.
S. 6 " $(6-4) \div 10 = .2$ " = " Milk Sugar.
P. .75 " { Cas. 0
{ Lact. .75
Whey.....ad 10 ounces.

F. 4 per cent. $4 \div 4 = 1$ ounce Cream.
S. 7 " $(7-4) \div 10 = .3$ ounces Milk Sugar.
P. 1.75 " $\begin{cases} \text{Cas. } 1 \\ \text{Lact. } .75 \end{cases}$ $1 \times 3 = 3$. " Whole Milk.
Whey.....ad 10 ounces

In increasing the strength of the food, increase either fat or caseinogen, as required. Do not increase both at same time. Usually allow several days to intervene before increasing again.

Having increased the percentage, do not lower again for three or four days, even if the baby seems somewhat unable to cope with the increase. Often within that time the baby will be digesting the stronger food as well as the weaker previously.

If, however, the baby becomes fretful, restless or vomits, or only takes part of a bottle, sweep out intestinal contents by a purgative, trying, at the same time, to find out which element of food is at fault—fat, sugar or proteids. Withhold at same time all milk food for two or three or four feedings. The baby may be kept on albumen water or whisky and water while the milk is cut off. Abstinence from milk food for part of a day will often enable the baby to be put on full diet again with comfort and benefit.

Is the baby digesting the food? An examination of the stools, daily for a few days, with a history of the baby's behavior, usually enables one to decide this point.

Is the baby thriving? The scale will show this.

More headway is often made, I am inclined to believe, if one directs his efforts towards securing a food which the infant can digest, rather than endeavoring to make him put on weight.

I have yet to hear of the first case of scurvy in an infant fed on a whey mixture.

Advantages.—Theoretically correct. Has a minimum of proteid. Proteid in easily absorbable form. Few or no curds to increase peristalsis and irritate mucous membranes. Produces little or no colic. Hence babies are more comfortable and therefore sleep better. Vast majority like the food and take it readily.

Disadvantages.—Trouble and care in making. Expense.

REPLY TO THE ADDRESS OF WELCOME TENDERED THE NEWLY-APPOINTED MEDICAL SUPERINTENDENT OF TORONTO GENERAL HOSPITAL.

BY J. N. E. BROWN, M.D., TORONTO,
Medical Superintendent, Toronto General Hospital.

The Board of Trustees, Ladies and Gentlemen,—Let me assure you that I very much appreciate the good-will you have expressed toward me this evening, both by your presence here and your kind words. I sincerely hope that our relations will continue to be as full of hearty and reciprocal good-will and esteem.

A speech lasting the whole evening, it would be impossible in it to speak fully of the present status and future possibilities of hospital work in general, and of the Toronto General Hospital in particular. So I must content myself and please you by making my remarks very brief.

You are all more cognizant than I of the present condition of the Hospital; and it would be better to leave it to the days that are before us to solve as best we can the many difficult problems that will present themselves, and to carry out the undertakings which the Board and the medical staff have in view.

The Toronto General Hospital, since its inception, has done a magnificent work in the relief of suffering humanity; and its influence has been carried by those who have been trained within its walls to the uttermost parts of the earth.

When, in the first rush for gold to our far northern frontier, epidemics of enteric fever and scurvy prevailed, it afforded me great satisfaction to know that, if needed, I could secure the attendance of doctors and nurses trained in the Toronto General Hospital.

We have all a right to venerate this old pile for what it represents of unselfish and untiring labor on the part of most worthy medical men and hospital officers, who have passed on to their rest and left the work they loved to be carried on by others. Our predecessors did their work as best they knew how, with their comparatively limited knowledge and sparse equipment. It is given to us to carry on the labor with a larger knowledge and more complete appointments.

But, as a result of the rapid strides in medical science during the past decade, the equipment adequate at the beginning of that period is entirely inadequate for our purpose to-day. It rests with us to see to it that the Toronto General Hospital is the model hospital of Canada. Members of the staff should not be content

until the institution is so complete in its appointments that it may be able to provide all the apparatus necessary for the finest diagnoses, the most modern forms of treatment for the sick, and also the means whereby the various branches of the healing art may be taught in the most satisfactory manner.

Gentlemen of the Board of Trustees, I believe that this represents the spirit and purpose which animates you. Each of you is keenly alive to the necessity for improved hospital facilities, as is shown by the time and money you have given, and the energy you are putting forth in such large measure to further the interests of the institution.

I earnestly trust that this same spirit may permeate every department of the Hospital, and that even the most humble helper in this great service will feel that the prosperity and popularity of the place depend as much on the faithful performance of his duties as they do upon the efforts of the Superintendent.

The present is a most important juncture in the history of the Hospital, and only a long pull, a strong pull, and a pull altogether, will enable the Board to carry their plans to a triumphant fulfilment.

Our Provincial Government, our city, and you, Mr. Mulock, have given us a magnificent financial start for a new building, to be centrally situated and complete in its appointments. It remains for each of us to do his part in assisting in this great enterprise. We shall count on the generous patronage and support of thousands of our citizens.

In view of all that might be said, my words are few and inadequate, but I shall be satisfied if you carry away with you one thought, and that is, in unity there is strength; and *this* is the strength which I desire in the staff of the Toronto General Hospital.

In an institution of this kind it is most important that work shall be carried on loyally and harmoniously. A high state of *esprit de corps* should exist. So far as you, gentlemen of the Board of Trustees, are concerned, I have already noted that it exists in a marked degree. I hope to find that it exists throughout the whole hospital organization. A feeling of kindliness and a desire for smooth, co-operative effort in the advancement of the Hospital's interests should pervade every department—surgical and medical staffs, house staff, nursing school, and all the officiary of the building. The relations of all departments to one another should be of a very cordial character. We cannot hope to do satisfactory work if any feeling of unkindliness and ill-will exist in our midst. We are all at work in a great charity, an essentially Christian work, and it is not consonant with the spirit which prompts us in this grand undertaking of healing the sick, that

any uncharitable sentiments should flourish, or, if possible, even be allowed to germinate in our midst.

For myself, I beg you to believe that the best that is in me is heartily given to forwarding the interests of the Hospital in every possible way.

I ask for the earnest and sympathetic co-operation of you all, and, in the words of our famous *confrere*, Dr. Osler, let us first, do to-day's work, and let to-morrow take care of itself; second, act the golden rule towards our professional brethren and our patients; and, third, to cultivate equanimity that will enable us to meet success or failure as befits brave men.

Abstracts

Duty of Physician to Patients with Perineal Lacerations.—Claude L. Holland, M.D., Fairmont, W. Va. (*Journal A. M. A.*, July 29th), reviews the injuries liable to occur to the perineum in labor, and discusses the proper time for repair. He advises immediate repair of these injuries, unless the condition of the patient positively contraindicates operation. He states that an anesthetic is generally unnecessary, as the parts are numb from stretching and pressure.

Carcinoma of the Breast.—Willy Meyer, New York City (*Journal A. M. A.*, July 29th, 1905), reports ten years' experience with his method of radical operation for this condition. He gives in detail the technic of the operation, and describes at some length the after-treatment of the patients. Meyer claims for this method of operating that the functional result is better than after other operations, as perfect mobility of the arm invariably follows. He reviews the results obtained in seventy cases. The article is well illustrated.

Tetanus.—J. M. Anders and A. C. Morgan, Philadelphia (*Journal A. M. A.*, July 29th), give a preliminary report of their statistical study of 1,201 cases of tetanus, collected from the literature and by direct correspondence, with special reference to the incidence of the disease in the United States. They find convincing proof that tetanus is invariably the result of the introduction of the germ, and that the so-called rheumatic or idiopathic tetanus does not exist. They also find that it is endemic in all large centres of population, that in some localities where it was formerly common, notably in Long Island, it has become rare, and that occasional small epidemics, traceable to a definite source, occur in limited localities, as, for instance, in hospitals, etc. It appears that tetanus is more prevalent in the hotter part of the year, that males are more subject to it than females, and that it is less frequent in advanced age. The robust are more susceptible than the weak, and the nervous, than the lymphatic. There is much evidence that the disease is transmissible, and may give rise to epidemics. The germ, Nicolaier's bacillus, is rarely introduced by the alimentary tract, but usually through open wounds, all parts of the body being very susceptible. A number of interesting clinical features observed in the cases collected are

related, and it was noticed that the characteristic symptoms, especially trismus, were generally present. The diagnostic importance of the tonic contractions as opposed to the intermittent ones in certain other conditions that simulate tetanus, such as strychnia poisoning, is emphasized. The authors found that their studies supported the earlier ones as regards the mortality, which decreases gradually after the tenth day and rapidly after the fifteenth. The study showed clearly the value of immediate radical local treatment, and that the most important thing is to open the wound freely in all directions under general anesthesia. Many patients were more or less benefited by the local carbolic acid treatment, and some observers report good results from the local use of ice or freezing mixtures, or treatment in a cold room. For palliative treatment, chloral and the bromids appear to have been most extensively used. Calabar bean has been much employed, and also morphin, which should be used with caution on account of its inhibitory action on the respiratory centres. There is no question as to the value of antitoxin as a prophylactic, the testimony is uniformly in its favor. It should be used in any case in which there is suspicion of tetanus infection. In a well-developed case of the disease it has no appreciable beneficial effect, neither reducing the mortality nor hastening recovery.

Splanchnoptosis from a Surgical Standpoint.—James E. Moore, M.D., Minneapolis (*Journal A. M. A.*, July 29th), states gynecologists have learned that replacing misplaced pelvic organs and supporting them by mechanical means gives only temporary relief. He discusses at some length the nervous disturbances caused by ptosis of the abdominal and pelvic viscera, and refers to the confusion and misapplication of terms used to designate this condition. He refers briefly to the various etiologic causes assigned to this disorder in the literature, and states that a patient suffering from vague, indefinite symptoms of varying severity should never be pronounced hysteric, dyspeptic or neurasthenic till visceral ptosis has been eliminated. He discusses the differential diagnosis and reviews the literature on this subject.

Immunity.—In Chapter XX of this continued article in *The Journal A. M. A.*, July 29th, tetanus is taken up in detail. The nature of the micro-organism is discussed, the period of incubation, mixed infections and the varieties of tetanus. The affinity of tetanus toxin (tetano-spasm) for the nervous tissue of susceptible animals, it is stated, may be demonstrated by test-tube experiments. The method by which tetanus toxin reaches the central nervous system is also considered. The value of tetanus antitoxin, the method of using it, and the necessity of its standardization, are also noted.

Suggestions for reducing the Prevalence of Summer Diarrhea in Infants.—T. S. Southworth says that a large part of the responsibility for the great infant mortality which recurs each summer rests on the medical profession, who have failed in their duty in anticipating such trouble by suitable prophylactic measures. These should date from the very birth of the child, and one of the most important is to urge breast nursing in place of bottle feeding. Over ninety per cent. of the deaths from gastro-intestinal disturbances occur in bottle-fed infants, and it is safe to assert that the surest protection against the death of an infant from summer diarrhea lies in normal breast feeding. If the secretion of milk is scanty, it should be used for part of the feedings at least, and every effort should be made to encourage the flow. Much has already been accomplished in the way of educating the masses regarding the value of pure milk, but there is still a great deal to be done in this direction. Even after uncontaminated milk has been secured, however, it must be properly modified and kept cold, carelessness in the latter respect being sufficient to defeat the best intentions of the physician. Errors in weaning, neglect of apparently mild attacks of diarrhea, and the common diagnosis of teething, which is used as an excuse for almost any evidence of bodily derangement, are factors that must be combated. The sucking nipple is another distributor of infection that must be abolished. The physician's day's work, even if he sees a child but once, is to seek out and correct errors in nutrition, to combat popular misapprehensions, to further the use of clean milk, to warn the mother that at the very beginning of loose movements in summer she should stop the use of cow's milk in any form, clear out the bowels with castor oil, give water or cereal gruels only, and send promptly for the physician, since delay is so often fatal. Only through such personal, painstaking instruction of the masses can the desired end be accomplished.—*Medical Record*, July 29th, 1905.

Chloroform and Ether Anesthesia.—C. T. Souther, Cincinnati (*Lancet-Clinic*, Cincinnati, Ohio, July 8th), calls attention to the fact that often too little consideration is given to the qualifications of the anesthetist. He mentions the various appliances for the administration of chloroform and ether, and the difficulty encountered in most of them when using them for male patients who have beard and moustache, and also says that these appliances can not be used, as a rule, in excision of the jaw and in operations on the hard palate. He describes in detail the method of preparing a patient for an anesthetic, and the method of its administration. He states emphatically that the patient should not be told to take long, deep breaths, but should be encouraged to breathe easily and naturally. He also states that in

the stage of excitement it is unwise to hold the patient down too forcibly. The patient should feel that he has met an inanimate object, and not a human adversary to whom he can show fight. Souther calls attention to the various reflexes which should be watched, and to the methods of resuscitation. He also mentioned briefly the treatment of patients after anesthetization.

Inflammatory Conditions of the Appendix.—H. Robb, Cleveland, Ohio (*St. Louis Medical Review,* July 8th), states that in a long series of abdominal operations he has made it a routine procedure to examine the appendix, and if he finds it diseased, to remove it, the patient's condition permitting. In 1,000 abdominal sections for pelvic disorders Robb failed to find positive evidence that in a single case the appendix was the primary seat of disease. Of 370 appendices removed and examined microscopically, 103 were normal, 46 showed signs of a chronic and 1 of acute inflammation. In 88 cases there was a hypertrophy of the subperitoneal or internal coat, or of both coats. In 66 cases the changes were of doubtful significance. In 36 cases the lumen was occluded, in 16 dilated, in 12 the appendix contained concretions, in 1 case the appendix was cystic and had undergone myomatous degeneration, and in 1 case no lymphoid tissue was present.

Laryngeal Diphtheria.—In a paper with this title, by O. H. Wilson, Nashville, Tenn. (*Interstate Medical Jour.,* St. Louis, June), the object is to emphasize the importance of early mechanical relief when mechanical obstruction threatens life. It is wrong to delay until the pressure is marked. Rapidity of progress is the characteristic feature of this form of diphtheria. Intubation is not a difficult procedure, and can be learned easily by practice; yet in no other operation does skill show to better advantage. An early operation, though possibly awkward, is better than waiting to give a moribund patient to an imported consultant.

Cesarean Section in Late Labor.—R. W. Holmes, Chicago (*American Journal of Obstetrics,* New York, June), believes that this procedure is not a justifiable one, and that the appropriate time for abdominal hysterectomy is at term before labor has begun or not long after active contractions have been in progress. The contraindications to the Cesarean section in late labor centre in the following facts: Prolonged labor lowers the woman's resistance to shock; conduces to atony of the uterus, therefore to hemorrhage, occasionally necessitating hysterectomy; it develops certain effete substances, which are eliminated more slowly than they are produced, and which lower immunity by a species of autointoxica-

tion. During protracted labor certain secretions are poured into the uterus and vagina which offer excellent culture media for the development of bacteria normally present in the parturient canal, or introduced by examinations. After the membranes are projected through the os externum, or the head has moulded into the os, they are exposed to the contamination of the vagina; in removing the secundines and the child through the uterine incision they may soil the peritoneum or wound. The prolonged labor frequently is the determining factor in the death of the child, or so jeopardizes its life that its prospects are curtailed. Holmes deprecates the Cesarean section performed with inadequate assistance, filthy surroundings and makeshift facilities. An emergency operation should not be done unless there be very pressing indications.

Cesarean Section.—J. B. De Lee, Chicago (*American Journal of Obstetrics,* New York, June) is of the opinion that the results obtained in ten cases of Cesarean section encourage one to extend the field of this operation. Of these ten cases, nine mothers recovered and nine babies lived. One child died in sixteen hours under symptoms of acute sepsis, though the mother recovered. The one patient who died had been in labor three days, had been examined under ether three times, and had a solid tumor of the ovary blocking the pelvis completely. The technic of the operation varied but little in each case. The transverse fundal incision was used only twice. The uterus was amputated three times, once for obstruction to the lochial flow, and twice because of a severe vaginitis. One ovary was left in each of these cases to preserve the ovarian function as long as possible. The uterus was delivered through the incision in all the cases, but the abdomen was closed in three layers and no hernia has developed in any of the cases.

Use and Abuse of Uterine Curette.—The article by R. P. McReynolds, Philadelphia (*American Jour. of Obstetrics,* New York, June) is based on the study of 170 cases of curettement. He uses the sharp curette almost exclusively, but occasionally finds use for a large, dull curette. Endometritis hyperplastica chronica or polyposa, subinvolution of the uterus, and puerperal conditions of the endometrium caused by the retention of some of the products of conception, yield promptly, as a rule, through a thorough and careful curettement, unless there is already present disease of the adnexa or a general septic infection. McReynolds scarcely ever finds it necessary to leave a packing of gauze in the uterine cavity, and when he does so he invariably removes it within twelve hours. In malignant growths not per-

mitting a radical operation, a careful curettement and the free use of the cautery, followed by chloride of zinc, has yielded surprisingly good results in his hands; the pain, foul discharge and hemorrhage are relieved; life is rendered much more comfortable and is lengthened materially. In curettement for diagnostic purposes his results have not been entirely satisfactory. In septic conditions, when the infection has passed through the endometrium into the muscle of the uterus to the Fallopian tube or to the cellular tissue around the uterus, or has been carried by the lymph vessels through the ovaries or elsewhere over the body, no appreciable benefit comes from the curettement, except to establish the diagnosis and to prove that the uterine cavity is free from all decomposing and septic material. In endometritis accompanying the submucous fibroids he has failed to see a curettement do any permanent good. In gonorrheal endometritis he has obtained anything but satisfactory results from curetting the uterus and swabbing out the cavity with pure carbolic acid, tincture of iodine, etc. In chronic endometritis McReynolds advocates a radical operation from the start, having seen but one case benefited by curettement. In dysmenorrhea from pathologic collections, the result from a dilatation and curettement are good. Major operations on the adnexa should be preceded by curettement of the uterus, unless there is some contraindication.

The History and Basis of Dietetic Methods in Typhoid Fever.—J. B. Nichols leads up to the expression of his own ideas on the subject of feeding in typhoid fever by reviewing the history of the dietetic treatment of fevers from the time when the antiphlogistic treatment was in vogue. This consisted in bleeding, purging, emesis, starvation, etc., to subdue the excitement supposed to exist. In the seventeenth century Thomas Sydenham followed this plan, but during the eighteenth century and down to about 1815, the mode of treatment of continued fevers was stimulant or mildly antiphlogistic. From 1815 to 1835 or 1840, the treatment became more vigorously antiphlogistic, and an entirely restricted diet was in general use, but then Robert James Graves, of Dublin, introduced the plan of more liberal feeding. During the late sixties or seventies of the nineteenth century, the present liquid diet, consisting chiefly of milk, came into practically universal use, and has met with but little opposition. The author takes the ground that the adoption of milk as the chief article of food for such patients has no logical justification, and he expresses himself in favor of a more liberal diet, which shall include solid food. Milk has many disadvantages, as coagulability, fermentability, bulk, etc., and while it is a complete food

for infants it is not adapted for the exclusive nourishment of adults, except in amounts that are practically prohibitive. It does not follow that because milk is fluid it is on that account more easily digestible, less irritating to the bowels, or leaves less fecal residue. The present method of feeding in typhoid has developed in a way that seems largely empirical, and the history of diet in fevers shows a progressive advance from a starvation regimen in the direction of more and more liberal diet. The author, therefore, believes that the present fears of soft and solid food might on trial prove to be unfounded, and he considers that typhoid fever patients should be given a more varied and more abundant diet than is now customary.—*Medical Record,* July 29th, 1905.

Carcinoma of the Male Breast cured by the Roentgen Ray.—S. Tousey's patient was a man of thirty-three, whose right breast was excised on account of the presence of a hard swelling, which was not accompanied by any glandular enlargements. The pathological examination showed the tumor to be carcinomatous. Six months later the man returned with a tumor of the left breast, which was somewhat softer and less adherent than the other, but more tender. X-ray treatment was begun, and after five months the tenderness had subsided, and in eleven months the growth had entirely disappeared. There has been no recurrence, though there has been no treatment for thirteen months.—*Medical Record,* July 29th, 1905.

The Hypodermic Use of the Salicylate of Mercury in the Treatment of Syphilis.—E. F. Kilbane says that taking for granted that mercury in some form is indicated, we have, in the intramuscular injection of the salicylate of mercury a mode of administration that is free from most, if not all, of the difficulties encountered in the use of the drug when administered in the ordinary ways (mouth, inunction, vaporization, etc.), in that it is cleanly, safe, efficient, entirely practical for office or dispensary uses, easy of administration, and capable of accurate dosage. It is entitled to consideration and trial as the routine treatment or foundation of treatment, to which may be added, or for which may be substituted, other treatment when required by special indications or conditions. It is equally well adapted to the modified expectant, the interrupted, or the continuous method of treatment. The objections usually made to the method are shown to be groundless by describing the plan followed in the Roosevelt dispensary, where sixty-four cases have been treated in this way during the past year. No untoward results have ever been noted, and only in one case did the patient complain of dis-

comfort after any but the first few injections. The author recommends this treatment for trial in every case of syphilis in which the administration of mercury is indicated for a period of time. Its advantages are many, and its disadvantages few and slight.—*Medical Record,* July 29th, 1905.

Animal Remedial Preparations.—J. W. Wainwright contributes an exhaustive paper on the various glandular and other animal extracts which have lately come into use in therapeutics. He says that the striking effect of thyroid extract in myxedema is an ideal illustration of Brown-Sequard's theory, and this preparation has received the greatest amount of study. Different observers still hold conflicting theories in regard to its action, but thyroid extract has been used with more or less success in myxedema, operative myxedema, exophthalmic goitre, and obesity. Several cases of cure or improvement have been reported of diabetes mellitus, eczema, and even in hemiplegia. It is claimed also to render more active the process of bone formation, and is, therefore, useful in fractures. Thymus gland or its extract has given somewhat similar results, except that it does not stimulate the heart or cause increased metabolism. It has been given with good effect in rachitis in doses of as many grams of the fresh gland as the child is months old. The object is to substitute the gland extract for the deficient internal secretion, while at the same time the general health is improved. Suprarenal therapy is then discussed at length, its various applications being described in detail. The author says it is probably the best hemostatic known, as it acts by contracting the small arteries, and has no chemical or other effect on the blood, is non-irritating, and does not form a clot. Pituitary gland has been used with good results in acromegaly and paralysis agitans. Spleen extract is employed in Hodgkin's disease, anemia, and all diseases with enlarged spleen. Hepatic and parotid extracts, pepsin and pancreatin, renal and nerve extracts are also described, and their uses indicated, as well as testicular, prostate gland, mammary, and ovarian extracts.—*Medical Record,* July 29th, 1905.

Clinical Suggestions from the Study of Five Hundred Cases of Pulmonary Tuberculosis.—H. P. Loomis presents a number of very interesting conclusions which are of especial value because they are based on a series of cases selected because of the unusual completeness of the records available. The patients include people seen in private practice, in the large hospitals, and in sanatorium work, so that all classes and all phases of the disease are represented. The first point discussed is concerned with the manner in which the disease begins. Of one hundred cases it was

found that in 80 per cent. the first presumable evidence of tuberculosis consisted in either coughs or colds (48 per cent.), run down condition (18 per cent.), or pleurisy, dry or with effusion (14 per cent.). The remaining 20 per cent. was about evenly divided between grippe, chills and fever (malaria), pneumonia (prolonged recovery), enlarged cervical glands, and hemoptysis. In only 4 per cent. of the one hundred cases was hemoptysis the first presumable evidence, but in 24 per cent. this symptom ushered in the first demonstrable evidence. The author believes that the great majority of patients who apparently develop pulmonary tuberculosis after the age of thirty had an attack of the disease before. The analysis shows that three and a half months was the average time that elapsed from the actual beginning of the disease to the appearance of tubercle bacilli in the sputum. The study of the features of value in prognosis is based on the records of patients admitted to sanatorium treatment, and shows, among other things, that the age between twenty-five and thirty is especially favorable, and that the general vitality and intelligence of the patient and the state of the digestion are of importance, whereas whether one lobe or more than one is involved is of less significance than usually supposed. Fever, hemorrhages, expectoration, or bacilli in the sputum, are of little value in the prognosis unless the case has been watched for a long time. An analysis of fifty-five cured sanatorium cases showed that the average age was high—twenty-nine, and that the long-lived ancestry of the patients was a point of especial importance, but a tuberculous family history was of less import. The average length of life among the tuberculous poor, with no advantages of rest or good food, is a little under two years.—*Medical Record,* July 29th, 1905.

Vasomotor Pathogenesis of Bronchial Asthma.—F. Galdi (*Gazetta degli Ospedali,* Milan) quotes a patient which exhibited typical bronchial asthma in childhood, but it vanished at puberty and did not reappear for ten years. It then returned, accompanied by symptoms indicating pronounced vasomotor disturbances, these symptoms sometimes appearing as an equivalent for the attack of asthma and subsiding as the latter became established. They included hyperidrosis, urticaria, formication and edema or sialorrhea, swelling of part of the tongue, diarrhea and intestinal disturbances. There was also copious secretion from the eyes, nose and ears. The attacks recurred at any season of the year, but they were almost entirely banished by general tonic measures, tepid sulphur baths and revulsion to the spine. The patient left before the treatment outlined had been entirely completed, regarding himself as cured.

Maragliano on Appendicitis.—E. Maragliano (*Gazzetta degli Ospedali,* Milan) is an advocate of prompt intervention, urging that the simple operation harms no one, even if the person might have recovered without it, while it saves many who would have been lost without it. He quotes a writer who asks, "Which is better, to save a few appendices or the lives of your patients?"

Roentgen Treatment of Leukemia and Banti's Disease.—C. Bozzolo (*Gazzetta degli Ospedali,* Milan) describes the subsequent history of the cases reported last July as improved under Roentgen treatment, mentioned in the *Journal A. M. A.* on page 1670 of vol. xliii. The young woman with leukemia has remained in apparent health, feeling constantly well. On one occasion the blood findings showed again a marked leukemic tendency, and Roentgen treatment was again instituted, with the same favorable effect as before. His experience with three cases of Banti's disease shows that Roentgen treatment has a beneficial action, but that it is much slower and more gradual than in leukemia. In this affection the fibrous part of the spleen is hypertrophied, and this tissue yields more sluggishly to the action of the rays than the lymphatic follicles which are involved in leukemia. The great advantage of Roentgen treatment is that the general condition improves and the patients feel constantly well, even although the blood findings fluctuate.

Arterial Pressure in Disease.—A. Torchio (*Gazzetta degli Ospedali,* Milan) has been studying the influence on the arterial pressure of various diseases and also of certain drugs. He examined 528 patients, besides a number of healthy persons, and tabulates the results. The first impression derived from study of the tables is that the arterial tension is lower in children, in both health and disease, than in adults, the proportion of cases of hypertension increasing from 7 per cent. under the age of thirteen to 19 per cent. from thirteen to twenty-five, and 36 per cent. from twenty-five to fifty, while after this age it is 61 per cent. A pressure of 115 mm. may represent medium pressure in a lad of fifteen, while it would be hypertension for a child and hypotension in an adult. Hypotension is the rule in typhoid fever and in pneumonia, also in tuberculosis unless complicated by lead poisoning, arteriosclerosis or alcoholism. In tuberculosis he found the arterial tension lower the more rapid the course of the disease. The tension was higher in the cases with hemoptysis. In pneumonia the cases with very low tension and rapid pulse terminated fatally, while the patients all recovered when the pulse was more nearly normal. The tension findings in twenty-five different diseases and a miscellaneous group show that hyper-

tension is the rule in heart and kidney affections and chronic bronchitis, less marked in neuralgia and neuroses, and medium in malaria. Rest in bed seems to reduce the tension, as also a milk diet; steam baths in nephritis and venesection also have a transient action. Adrenalin and saline infusion raise the tension. Further research on twenty-eight persons demonstrated that injection of tuberculosis toxin materially reduces the tension.

Inconstancy of Salicylic Medication in Articular Rheumatism. —A. Cerioli (*Gazetta degli Ospedali,* Milan) remarks that the curative action of the salicylates is in direct proportion to the spontaneous defence of the organism, reinforcing it but not able to cure without the co-operation of the organism. He quotes Maragliano to the effect that statistics show that the course of articular rheumatism has not been shortened since the advent of salicylic medication, to which he does not ascribe much therapeutic importance. Cerioli urges that the phases of the disease should be watched and the salicylates be given with discretion to aid nature, not blindly and insistently, in which case they do more harm than good.

Prognostic Importance of Phosphates in Urine in Pneumonia. —F. Sicuriani (*Gazetta degli Ospedali,* Milan) concludes from his research on twenty-five patients with pneumonia that the alkaline phosphates vanish from the urine during the course of pneumonia. Their reappearance in the urine is the precursor of the crisis and a sign of good omen.

Operation for Umbilical Hernia.—A. Dal Vesco (*Gazzetta degli Ospedali,* Milan) makes a short incision below the hernia and works a gauze compress between the viscera and the abdominal wall. He then passes a stout thread through the lips of the incision, over the gauze, fastened on one side by a roll of gauze, and held on the other by hemostatic forceps. He then carries the incision farther up, working the gauze along and introducing another suture, continuing this until he has the hernia well under control, the viscera held in place by the gauze spread out over them, reinforced by the suture threads passed over across it. After taking care of the hernia as usual, he completes the operation by tightening the suture threads, thus drawing the lips of the incision together, and then pulling out the gauze, concluding by fastening the ends of the threads over rolls of gauze and suturing the skin. The recuperating power of the tissues of infants insures rapid repair, while the simplicity and security of this operation commend it for general adoption, he thinks. The entire procedure is complete in less than twenty minutes, even in extensive cases.

Parathyroid Treatment of Puerperal Eclampsia.—G. Vas-ale (*Gazetta degli Ospedali,* Milan) reports that the effect of an extract of the parathyroid glands in cases of puerperal eclampsia has been surprising. The convulsions were arrested so promptly that the assumption of a specific action seems almost inevitable, as it resembles so much that of the thyroid gland in myxedema. He has found the parathyroid extract useful also in tetany, and expatiates on the way in which the clinical experience harmonizes with this conception of the parathyroid origin of convulsive attacks. He is now trying the parathyroid extract in epilepsy.

The Pasteur Preventive Treatment of Rabies.—The New York Health Department gives the Pasteur preventive treatment for rabies at the Research Laboratory at the foot of East Sixteenth Street. In addition, the virus is sent out mixed with a preservative, to be administered by the attending physician to persons desiring to take the treatment at home. When sent from the laboratory it is mailed daily by special delivery. The results of treatment given by the latter method have been as satisfactory as when administered at the laboratory, but it is considered advisable that not more than two days should elapse between the mailing of the virus and its injection into the patient. The course of treatment lasts from two to three weeks. It is strongly recommended that wounds inflicted by rabid or suspected animals be thoroughly cauterized with fuming nitric acid, or, if this is impossible, with the actual cautery. Immediate washing out of the wound is also advisable. When possible, it is recommended that animals suspected of rabies be securely chained and kept under observation for eight days. If rabies exist, symptoms will develop so that a definite diagnosis is possible within this time. If the animal is killed the carcass may be sent to the laboratory for diagnosis. The routine is to make an examination of smears and stained sections of the brain tissue, and also to make animal inoculations. By the former method a positive diagnosis may be reached in from thirty-six to forty-eight hours. A failure to find the characteristic lesions does not, however, exclude rabies. In the event of a failure to find the lesions, the animal inoculations are relied on for a diagnosis, which usually requires from eight to eighteen days. In sending animals from a distance it is recommended that, if small, the entire body be sent. If this is impossible, the head alone should be sent. The animal or head should be securely fastened in a box, and packed with a considerable quantity of ice and sawdust; the whole to be shipped to the laboratory in a larger box.—*New York Medical Journal* and *Philadelphia Medical Journal.*

Proceedings of Societies.

THE THIRD QUARTERLY MEETING OF THE PROVINCIAL BOARD OF HEALTH.

At the third quarterly meeting of the Provincial Board of Health, which was held at Port Carling, Muskoka, August 2nd and 3rd, 1905, the following members were present: Dr. Kitchen, Chairman; Dr. Hodgetts, Secretary; Drs. Cassidy, Oldright, Boucher and Thompson. Dr. Amyot (chief of the laboratory), and Dr. Bell, inspector, were also present.

Mr. Rust, C. E., Toronto, presented the plans for a system of sewage disposal for the lake front of Toronto, east of the Woodbine race-track. The report recommended that septic tanks and bacteria beds be put in at the foot of Woodbine Avenue, so that the sewage might be treated there before discharging it into the lake. East of this point, as far as Hammersmith Avenue, the sewage would descend by gravitation to the bacteria beds. The sewage collected along the lake front would have to be raised by pumping, and an electric motor would be installed to pump it into the beds. The beds and tank would cost about $25,000. The total estimated cost of sewers and disposal plant would be about $80,000. It is to be a separate system, no rain-water being allowed to enter. Permission was likewise asked to establish a storm water overflow at the foot of Roncesvalles Avenue, so as to allow storm water to overflow into the lake through a main to be built beneath the Grank Trunk Railway track at that point. The matter was referred to the Committee on Sewerage and Water Supply, East.

In the correspondence read by the Secretary, reference was made to the filthy habits of some workpeople in canneries. The inspector of the Board was asked to look into this matter and report.

A letter was read from Mr. Duncan in reference to the sewerage of Collingwood. The Secretary was instructed to acknowledge the letter and to advise him to construct a tank for the sewage of the town in conformity with the resolution of the Board upon the subject.

The disposal of sewage at the Charles Street bridge, Belleville, was referred to the Committee on Sewerage, East.

Two complaints about polluting the air and causing disease

through the proximity of cemeteries at Bothwell, in the township of Zone, and at Mount Pleasant Cemetery, Toronto, were received, as was also a complaint about sewers at Mount Forest. They were referred to the Committee on Sewerage, West.

A complaint was received about a nuisance at Bracebridge. The Board adopted a report in favor of the removal of the nuisance, the local authority to take action in the courts.

The consideration of the sewerage of Kincardine was deferred.

A nuisance caused at Napanee by a dairy was referred to the Secretary and Dr. Boucher.

The Secretary informed the Board that Palmerston sewerage had been installed without the sanction of the Board. Similar information was given by letter to John Galt, C.E.

Complaint was made that the town of St. Thomas discharges raw sewage into Kettle Creek, from which the town's water supply is taken. The question was referred to the Committee on Sewerage, West.

A report of the Committee on Sewerage, West, about the sewerage of North Bay was adopted.

At the evening session the Secretary, Dr. Hodgetts, read his quarterly report, in which reference was made to the continuance of a high death-rate from consumption without any move being made by municipal authorities to provide sanatoria for the indigent class. He referred to the ravages of epidemic cerebro-spinal meningitis in the Ottawa valley, and advised that Boards of Health act under Section 90 of the Public Health Act, and placard, maintaining a quarantine over the cases, with subsequent disinfection of the premises. Attention was called to the need which existed for the better sanitary control of slaughter-houses, as in many instances the methods employed were disgusting and insanitary. He recommended that the attention of the Dominion authorities be drawn to the necessity of prohibiting the importation of certain proprietary articles from the United States which had for their object the preservation of milk or the increasing of the quantity of cream, as they were nothing more or less than adulterants.

Dr. Amyot presented his quarterly report, giving data as to the routine work of the laboratory, such as the examination of diphtheria swabs, sputum for tuberculosis, water for bacterial and chemical pollution, and blood for the diagnosis of enteric fever. The doctor also reported on the examination of the water supplies of Burk's Falls and Ingersoll in special reports.

The Board resumed business at 10.20 a.m., August 3rd.

Dr. Bell, medical inspector, presented a number of reports in reference to insanitary conditions observed by him in several different parts of the Province: Cobalt Mine, Temiskaming

Iron Mines, Michipicoten, East Whitby, Raeside Township, Blanche Riviere, Pembroke, Espanola, Rainy River town and sawmills, Port Stanley, Jackson's Point, Grimsby Park. Reference was made in one of these reports to a Mr. Frazer, who has been setting members of the labor union against the regulations of the Board. This gentleman had been carrying on an illegal form of insurance. It was moved and adopted that the report in reference to Mr. Frazer be received as read. It was moved and adopted that the recommendations made in reference to the various insanitary conditions referred to in Dr. Bell's report be adopted, except that made in reference to Jackson's Point. Dr. Amyot's laboratory report was adopted.

Brief reports on the Bothwell cemetery question and the nuisance at Mount Forest were presented by the Committee on Sewerage, West, and adopted. In the opinion of the Committee, "The burial of bodies in a cemetery will not cause insanitary conditions to prevail in that vicinity.

The Committee on Sewerage, East, reported in favor of the plans for the disposal of sewage at the lake front of Toronto (Woodbine and at Roncesvalles Avenue). This committee also reported in favor of using a septic tank at Belleville for the reception of sewage. The reports were adopted.

The Secretary read a report about the wells of Port Stanley, in which he recommended that the inhabitants of that village boil the well water before using it. He also presented a joint report made by Dr. Amyot and himself on typhoid fever at London. Both reports were adopted.

In reference to the water supply of Ingersoll, Dr. Amyot's suggestion, that the water of that village be filtered, was adopted.

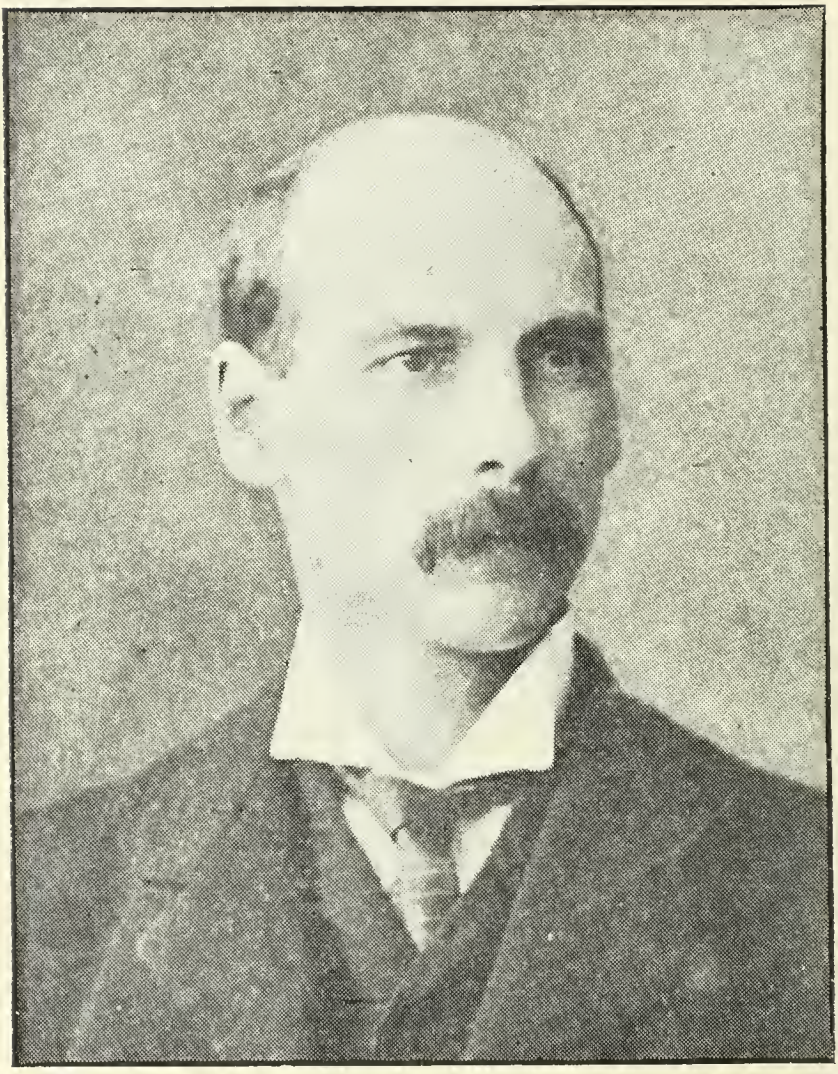
Dr. Amyot's report on the Reazin Lake at Burk's Falls was adopted with the understanding that the water be filtered, and that further tests of the water be made for the information of the Board.

Remarks were made by Dr. Oldright about sanitation in Muskoka. Mr. B. Saunders, Toronto, who was present, was invited to speak on the sanitary conditions of Muskoka, and made a few remarks thereon.

A motion, complimentary to Dr. Oldright for his hospitality, and for many kindnesses to the members of the Board during the meeting, was passed. Dr. Oldright accepted the motion, but requested that it be not recorded on the official minutes.

A motion of thanks to Mr. Hanna for the use of the hall (Public Library) was carried. The Board then adjourned.

J. J. C.



DR. J. N. E. BROWN

Recently appointed Medical Superintendent of Toronto General Hospital, to whom we extend our heartiest congratulations upon this recognition, not only of his executive ability, but his standing as a member of the professioo. In Dr. Brown's appointment in succession to Dr. Chas. O'Reilly, we think the Trustees have made a wise selection.

The Canadian Journal of Medicine and Surgery

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., *must be* in our hands by the fifteenth of the month previous to publication.

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Editorials.

IS THE SANATORIUM TREATMENT OF CONSUMPTION WORTH WHILE?

SINCE professional opinion, enlightened by specialist experience, begins to look more and more favorably on sanatorium treatment, the truest hope for phthisical patients, the grounds upon which that opinion is based are being closely scrutinized. Dr. Don, writing to the *British Medical Journal*, June 24th, 1905, says:

"Is the sanatorium method worth while? It is expensive, and to get full benefit, as the writers suggest, almost impracticable for the poor, unless charitably assisted, and the results are not one whit better than could be had from a prolonged holiday, either at sea or in the country."

For the poor in Canada, as well as in less favored lands, a prolonged holiday on sea or land is hard to get, or even impracticable. Besides, even if the phthisical patient, who is in poor circumstances, were to strive to carry out the advice of a physician, and were to succeed in providing for the breathing of pure air, day and night, an abundant supply of nourishing food would be beyond his resources. Hence the primal necessity of an institution in which the needs of the stomach are fully looked after, as well as a supply of fresh air to the lungs.

But, even supposing that a phthisical patient is in easy circumstances, can provide for well-ventilated rooms, and a full dietary at his own home, no guarantee can be given that the instructions of the physician will be carried out, or that they will not be deliberately disobeyed when the physician's back is turned.

While, therefore, for poor and rich phthisical patients there is a consensus of opinion as to the essentials of cure or betterment in phthisis, there is, besides, excellent reason for believing that expert supervision and constant guidance of the patient form a very considerable part of the programme.

Such conditions are best obtained in sanatoria of the better class, and the reasons are not far to seek. The treatment of consumption in a sanatorium is one of fine adjustments; it is systematic and detailed; it is rigidly carried out. The whims and fancies of the patient, or of the patient's friends, are not allowed to interfere with the well-considered rules of the institution. So that, unless a patient and his friends are willing to carry out the orders given as intelligently, as readily, as rigidly, as they are carried out in the sanatorium, private treatment at home cannot produce as good results as when the phthisical patient is subjected to sanatorium discipline.

In some cases a phthisical patient, who has been subjected to sanatorium treatment for some months, after returning home, may follow out the instructions of the physician, and thus a prolonged stay at the institution may not seem to be required. In

many cases, however, the change from institutional to private treatment has been made as a concession to the straitened circumstances of the patient and does not yield favorable results. Thus, an eminent French authority, Dr. Vaudremer, says: "Patients who have left the sanatorium are reinfected when they get back to the environment which originally infected them."

It is desirable, therefore, to prolong the stay of the phthisical patient at the sanatorium, and to decrease the cost of his treatment. To accomplish these desiderata for the masses, a sanatorium should be a labor colony, or in connection with a labor colony. In England the latter method of conducting a sanatorium is carried out at Kelling. There does not appear to be any good reason why industrial sanatoria under the control of municipalities, aided by grants from the Provincial Governments, and by any subscription the Federal Government of Canada may choose to offer, should not be tried in this country.

Prisoners confined in the Central Prison, Toronto, or the Provincial Penitentiary at Kingston, work at trades and handicrafts, and doubtless derive benefit therefrom to mind and body, while contributing a little to the cost of their maintenance. It is not unreasonable to think, therefore, that a sanatorium could also be managed on the industrial plan. A phthisical patient, who is likely to derive benefit from treatment, will generally be benefited by light work. Nothing is more injurious to the nervous, pulmonary, circulatory, secretory and muscular tissues of the body than enforced idleness. Rest after labor is beneficial, but the fact that a patient is mildly phthisical is not a sufficient reason why all work should be suspended in his case and existence made to consist of allotted periods of time devoted to a long chair or to bed. Phthisical cases there are, indeed, for whom a do-nothing method of living is temporarily called for, but, unless when febrile attacks supervene, the phthisical patient is more likely to feel better in mind and body when he is occupied, and, in any case, occupation with a purpose must always be regarded as superior to desultory amusement and the passive respiration of pure air. We think that sanatorium treatment of the masses would be worth while, if it were based on the industrial plan, under the control of the Government of the Province, because the treatment of the disease would be continued sufficiently long to secure definite

results, and because the co-operation of a considerable number of the patients with the industrial work of the sanatorium would help to lessen the inevitable expenses of the institution.

A deputation of medical men and prominent citizens, representing the five counties of Perth, Oxford, Wellington, Waterloo and Brant, recently waited on the Ontario Government, asking that the grant of $4,000, promised by the Government to municipalities which would undertake to erect and maintain sanatoria for consumptives, be in this instance raised, as these were the first counties to form themselves into a group for this purpose. It is understood that the Government was favorable to the proposals; so it may be expected that the inauguration of municipal sanatoria for consumptives is now on the way and that within the space of a short time these institutions will be scattered all over the Province of Ontario.

When these sanatoria are established, we hope that the industrial feature alluded to in this article may not be lost sight of.

J. J. C.

TO LIVE TO BE ONE HUNDRED YEARS OF AGE.

To one who dwells upon time with regard either to its sentimental or its historical relations, it may be a matter of considerable interest that a human being should live to be one hundred years of age. To the centenarian prolonged life can scarcely be a pleasure, for he necessarily feels himself amongst strangers—a dependent, perhaps—his youthful companions all dead; wife, perhaps even children, removed from his side; new things all around him.

Yet, Sir James C. Browne, an author of various works on nervous and mental diseases, declares that "it is a good working hypothesis to regard the natural life of man as one hundred years. Every child," he says, "should be brought up impressed with the obligation of living to be a hundred years, and should be taught to avoid irregularities in living which tend to prevent the attainment of this ambition. While it was certain that a century of health and vigor could be attained, it could only be reached by faithful obedience to the laws of health and simplicity, and tranquility in living."

The histories of some centenarians would go to show that they have been exposed to hardships and great vicissitudes of fortune, and, while they may have been faithful in the main to the laws of health, they have not lived simple or tranquil lives.

Thus, a Welsh correspondent of the *London Daily News* says that there is now wandering about Shropshire and Denbighshire a man named John Vaughan, who was born on March 13th, 1801, and is, therefore, in his 105th year. He joined the British army, serving twenty-nine years with the 17th Lancers. He was bugler at the battle of Waterloo, at the age of fourteen years and three months, and clearly remembers the famous battle. Vaughan served through the Crimean War and the Indian Mutiny, where he was badly wounded. This wound still troubles him. He took part in nine severe engagements, and retired from the army forty-nine years ago with a pension of one shilling a day. The veteran bugler says he has been a teetotaler all his life, to which he attributes his longevity. He enjoys his pipe of tobacco, is still vigorous; his eyesight is keen, and hearing perfect. He gets a living by going from place to place by train selling boot laces and children's story-books, by which he gets four pence profit in the shilling. Now, here is a man who has attained a century of health and vigor, serving his country on the battlefield, taking part in nine severe engagements. Certainly not the best method of obeying the laws of health and striving for simplicity and tranquility in living. All his contemporaries are dead. Some of them lived dissipated lives; others lived lives of tranquility and simplicity; but all have bowed to the inevitable decree and are now at rest.

Then, again, he enjoys his pipe of tobacco, and is still vigorous. The only consolation Sir James C. Browne could extract from the history of Vaughan's life would be that the veteran has been a teetotaler all his life. It seems probable that Vaughan, like other centenarians, has been mainly indebted for his longevity to a vigorous constitution.

Charles Macklem, the actor, who was born in 1690 and died in 1797, preserved good health up to the time of his death at the age of 107 years. Yet he never was an abstemious man. His favorite beverage was ale, porter, or white wine, thickened to the consistence of syrup with sugar. There can be no doubt

that the constant care and attention of his devoted wife, combined with her thorough knowledge of his disposition, constitution and temper, was partly the cause of the prolongation of his life.

Natural strength of constitution is doubtless the important feature in cases of longevity. The body of Thomas Parr, who died at the age of 152 years (1483-1635), when examined by the great Dr. Harvey, was found to be remarkably stout and healthy, without a trace of any decay or organic disease, so that, had it not been for the abnormal influences to which he had been subjected for a few months previous to his death, there seems little doubt that Parr might have attained even a much greater age. Longevity in the human family, like genius, seems to be a rare peculiarity possessed by a favored few.

J. J. C.

THE COMING OF THE BRITISH MEDICAL ASSOCIATION.

The British Medical Association has been invited by the medical profession of the whole Dominion to hold its seventy-fourth annual meeting in Toronto in the summer of 1906. This will be its second meeting in Canada. The first was held in Montreal, in 1897, and such was the character of the cordiality and generosity extended to the members of the Association that a second one became not only a probability, but a desideratum. That Toronto will emulate her sister city in the character of her welcome need cause no misgivings whatever. The time selected for this great scientific and social event is most opportune, for the whole country is enjoying unprecedented prosperity, and Toronto is the place *par excellence* for holding successful conventions.

The British Medical Association still holds the first position amongst medical organizations, and its coming next summer will doubtless kindle even greater enthusiasm amongst medical men throughout the Dominion than the former meeting did, for medical science has advanced rapidly since then, and it behooves every physician to keep pace with the progress that is going on. Whilst this meeting, both from a professional and patriotic standpoint, will appeal to medical men all over the country, yet special obligations must, of necessity, be loyally assumed by the profession in Toronto. Recently we have had a little family "scrap" over the proposed new hospital, but every ember of it

must be smothered out in the presence of duties that call for united action.

The present proud status of this Association has been achieved by the unquenchable enthusiasm and untiring zeal of a long line of its most distinguished members. Those of us who have had much to do with medical societies know right well, from experience, that "success is never harvested from slumberous beds of ease." The physician who says, "Oh, well, I won't be missed; they will get along just as well without me," is doing himself, his profession, and the Association an injury. Few of us may have ability or confidence enough to read a paper or take part in the discussions, but every one can bring a strong, enthusiastic personality with him. The success of any meeting depends quite as much on the character of the audience as it does on the ability of the speakers. Modesty and indifference are never synonymous terms; the former is one of the graces, the latter is a vice of such hideous mien that we want to neither see nor hear anything of it, in so far as the coming meeting is concerned.

J. H.

EDITORIAL NOTES.

The Pasteur Preventive Treatment of Rabies.—The attention of the Ontario profession is invited to an item, with the foregoing title, which appears on page 174 of this issue of THE JOURNAL, in which is given a brief statement of the Pasteur preventive treatment for rabies as carried on at the Research Laboratory of the New York Health Department. As treatment of this kind is not administered in Ontario, information as to the treatment in the laboratories of the New York Department of Health should be more generally distributed among the medical profession of this country. In a case of suspected rabies in an animal, the animal should be sent, alive, if possible, to the laboratory of the Ontario Board of Health, in order that a correct diagnosis of its condition may be made. If the suspected animal is dead, the carcass, or at least the head, should be packed in a box containing a considerable quantity of sawdust, with ice, and sent without delay to Dr. Amyot, Laboratory of the Ontario Board of Health, Toronto. The tests for the diagnosis of rabies will be made and a report of the conditions found will be sent.

President Roosevelt Appreciates the Physician. — In an address delivered before the Associated Physicians of Long Island, at Oyster Bay, last July, President Roosevelt said of medicine that "there is not, and can not be, any other lay profession the members of which occupy such a dual position, each side of which is of such importance, for the doctor has, on the one hand, to be the most thoroughly educated man in applied science that there is in the country, and, on the other hand, as every layman knows, and doubtless many a layman in the circle of acquaintance of each of you would gladly testify, the doctor becomes the closest friend to more different people than would be possible in any other profession." Not much glory is to be won by a physician in becoming the friend and confidant of different people. A man likes to have some friend upon whom he can rely, and if the friend happens to be a physician, he rightly thinks that a patient's secrets and foibles are safe in his keeping. The advantage is all on the side of the patient. True glory, in medicine, is won by accurate diagnosis and treatment; in surgical cases, by successful operations. More gratifying to an educated profession are the President's memorable words about the hygienic reformation of Cuba: "This country (the United States) has never done better work, that is, work that reflected more honor upon the country or upon humanity at large, than the work done in Cuba, and, further (Dr.), Leonard Wood did in Cuba just the kind of work that, for instance, Lord Cromer has done in Egypt."

Cerebro-Spinal Meningitis. — Last March an outbreak of cerebro-spinal meningitis, with three deaths, occurred in Russell County, Ontario. At Carp, Carleton County, in July, one physician noted four deaths among eleven patients. Another doctor had six cases in one house. Most of the patients were children, but several adults attacked with it succumbed. The cases have occurred in houses similarly situated—log structures, built on the ground and surrounded by trees, so that the sunlight is prevented from shining freely inside. It seems plausible that the diplococcus intracellularis meningitidis is the specific cause of this disease; but how it enters the body is not known. Authorities seem to doubt the *infectious* character of cerebro-spinal meningitis. The disease, however, must be infectious, that is, breathed into the body, as smallpox, for instance, or contagious,

as syphilis, or it must be conveyed in the food or in the drink, like typhoid. The only other method of invasion is by inoculation. If infectious, the micro-organism is inhaled, as is the bacillus tuberculosis; if contagious, contact must be had with the specific micro-organism; and if conveyed by food or drink, it must be swallowed in uncooked food, such as milk, water, lettuce, radishes, celery, etc., or fruit. It is claimed that animals succumb to cerebro-spinal meningitis, and they may prove to be sources of infection or contagion. The mosquito, flea, bedbug, fly, and other animal parasites may, indeed, be a means of inoculating patients, as is the case in malaria and yellow fever. There would seem to be a chance for the bacteriological department of the Ontario Health Board to obtain definite information about the etiology of these cases of cerebro-spinal fever, which have occurred in Ontario, by searching for Weichselbaum's bacillus in animal parasites found in the log cabins or houses of patients stricken with the disease in question.

Third Quarterly Meeting of the Provincial Board of Health.—The third quarterly meeting of the Provincial Board of Health, held at Port Carling, Muskoka, August 2nd and 3rd, will be memorable to the members, not only for the good work done, *vide* p. 148, but for the pleasing environment in which the stage was set. Nearly all the sessions were held in the quiet little Public Library of Port Carling, which had been reserved for the accommodation of the Board by Hon. Mr. Hanna. Removed from the disturbing demands of his office—no telephone to answer, no professional appointments to make or keep—a member of the Ontario Health Board could do his best work and not find the task burdensome. "Work first and then rest," is a good motto; but the work is more excellently done when the worker is at ease with the present, and looks forward to to-morrow as if it had been to-day. Dr. Oldright, a member of the Board, Mrs. Oldright and family were mainly responsible for the relaxation and amusement interwoven with the professional labors of the Board.

To Shave or not to Shave.—Fashion having decreed the removal of whiskers and long beards, most men content themselves with a clipped beard and a moustache, or only a moustache. Some go to extremes, and sacrifice the manly appendage on the upper lip, also. Hygeia may have set the present fashion of shav-

ing; at any rate, she favors it. To be logical, therefore, her devotees should be shavelings; *sans* beard, *sans* moustache, *sans* hair of the head, likewise. The surgeon—immaculate of hands, head, face, attire—would appear to be driven by the logic of his art to out-do the present fashion in shaving. But, after all reasonable objections to short hair and clipped beard have been recorded, should a surgeon be asked to make a laughing-stock of himself, just because an extreme hygienic view has been broached? Certainly not, if the object aimed at, an aseptic condition of the surgeon's head and face, can be attained by less radical measures. Short hair and a clipped beard are easily kept clean, and the surgeon, when operating, should wear an aseptic cap. It occurs to us that a surgeon who suffers from stomatitis, sore gums, a pyorrhea alveolaris, or other foul condition of the mouth, would prove dangerous to his patient, no matter how closely his hair and beard are trimmed.

Remedies for the Infirmities of Old Age.—Metchnikoff observes that mammals have developed a large colon for the purpose of storing the products of digestion, and that man has inherited an enormous colon, at the expense of his longevity. The colon harbors an extraordinary number of bacteria, the presence of which leads to fermentations, putrefactions, and the production of alkaloids, fatty acids, and toxins, the presence of which is deleterious to the possessor. In youth, owing to the strength of the power of resistance, the struggle of the organism against the toxins is easy; but, with advancing years and a failing power of resistance, autotoxemia prevails. The extent and capacity of the power of resistance of an individual depend chiefly on the efficiency of the emunctory organs, the skin, kidneys, lungs, and liver. In youth, these organs being unspoiled by disease, function actively and toxins are rapidly eliminated; in old age, the emunctories first cease to function actively and afterwards degenerate, thereby becoming incompetent to execute their office. It seems unnecessary, therefore, to ascribe all the autotoxemia of a senile patient to dilatation of the colon; a considerable source of autotoxemia is present in his organism because of the failure of the skin, kidneys, and other emunctories to remove with sufficient rapidity the poisons generated in his organism. Hence, in treating aged patients, physicians, in addition to the usual

measures for procuring systematic lavage of the colon, should use means to improve the circulation, and, besides, advise stimulating baths, with superficial massage, pulmonary exercises, and an abundant drinking of pure water. Middle age often brings luxury, and almost invariably the lessened calibre of the arteries narrows the field of the physiological activities. The power to enjoy all the pleasures of the table is at its height at the period of life when the defects of the individual's organism are beginning to make themselves felt. Good sense would suggest that an effort should be made to introduce harmony between the conflicting forces—the food consumed and the efforts of the emunctories. It is absurd for a man of sixty to eat as heartily as he did at thirty. The output of his physical and mental energies is not so great as it used to be, and he does not require as much nutriment for the smaller effort as he did for the greater one. When he does eat a big dinner, or indulge in excess of another kind, he is soon made aware that autointoxication, with its resultant train of evils, is rampant, so that he is forced to acknowledge the limitations of his powers and be less indulgent to his passions, or more discreet in their exercise.

J. J. C.

PERSONALS.

Dr. W. J. Wilson and family have just returned from Muskoka.

Dr. and Mrs. D. C. Meyers spent two weeks last month doing the Maritime Provinces.

Dr. and Mrs. N. A. Powell enjoyed a week's vacation at Burleigh Falls last month.

Dr. J. J. Cassidy and family have been summering at their cottage, "Sanitas," at Long Branch.

We congratulate Dr. W. B. Thistle upon his recent engagement, and wish him and his bride-to-be every happiness.

Dr. F. N. G. Starr and Mrs. Starr left Toronto on August 17th for Halifax and New Glasgow, N.S., and will return about the 1st of September.

Dr. Geo. Elliott and Mrs. Elliott, of Beverley Street, left on the 14th ult. for Halifax, N.S., where the Doctor, as General Secretary of the Canadian Medical Association, will attend to his duties during the meeting of our National Association.

Dr. T. D. Crothers, of Hartford, Conn., Supt. Walnut Lodge Hospital, has accepted an invitation to deliver the first oration in the Norman Kerr Memorial Lectureship, at London, Eng., Oct. 10th, 1905. Dr. Kerr will be remembered as an eminent London physician who made a special study of inebriety, alcoholism, and other drug disorders. He wrote several excellent books on this subject, and was instrumental in securing the enactment of laws for the control of inebriates and the promotion of hospitals for their care throughout Great Britain. He founded the British Society for the Study of Inebriety, in 1884, and this society, and his friends, have organized a memorial lectureship for yearly orations on his life and work. It is a very pleasant recognition of the progress of medical science in this country, that an American physician should be invited to deliver the first lecture.

Obituary

DEATH OF DR. W. W. MEACHAM, OF WARSAW.

Dr. W. W. Meacham, for many years a prominent Conservative member of the Legislature, died on July 26th, at his residence, Warsaw, after a short illness from appendicitis. The late Dr. Meacham, who was sixty-four years of age, removed to Warsaw four years ago from Napanee, and was making his residence in the latter place, the representative of the constituency of Lennox in the Legislature. He won for himself by his genial disposition and affable manner the respect and esteem of a large circle of friends on both sides of the House. He was a prominent member of the Methodist Church. He is survived by a family of three children, one daughter and two sons. The funeral took place at Warsaw.

Death of Dr. Gillies.—At Teeswater, Ont., August 15th, 1905, John Gillies, M.D., aged 69 years.

Correspondence.

The Editor cannot hold himself responsible for any views expressed in this Department.

AN INTERESTING LETTER FROM PARIS.

To the Editor of The Canadian Journal of Medicine and Surgery :

Dear Sir,—Knowing with what interest the profession and public in general regard the subject of Doyen's serum for cancer, I take pleasure in forwarding you the report in brief, as per *Le Figaro* of Juillet 15:

"Yesterday was a bad day for Dr. Doyen, at least bad for the micrococens neoformans. We remember that after the last Congress of Surgery, last 14th of December, the Society of Surgery had, on the request of Dr. Doyen, entrusted to several of its members the delicate mission of examining and following up a certain number of persons diseased, treated by Dr. Doyen in his clinic in the Rue Picini, and according to a method the efficacy of which, at this period, was strongly disputed by specialists. The commission, presided over by Mons. Berger, was composed of Messieurs Delbet, Kirmisson, Charles Monod, and Nélaton.

"It is well understood that the researches and examination with which these learned and distinguished men were charged had not in the least the object of recommencing the work of Professor Metchnikoff as regards the existence of the same bacillus of cancer, the micrococcus neoformans discovered by Dr. Doyen. The bacillus exists, that is agreed. But the important question, the main one which interests poor human beings, is to know if Dr. Doyen had succeeded, as he had affirmed, in becoming master of this microbic enemy, in treating cancer successfully, in conquering it. It was on this point on which the commission carried the examination. The commission has conscientiously worked for several months, and Dr. Delbert, one of the most eminent surgeons of the Hospital Laennec, who was entrusted with the preparation of the report, read it the day before yesterday before the Society of Surgery.

"An enormous crowd of doctors, surgeons, hospital internes, students, and other curious ones, filled the little spot in the Rue de Seine at an early hour. What had the commission decided? This question of the treatment of cancer is one of those which stirs most intensely at this moment the world of science and

learning, and the reading of this report was listened to by all with a true anxiety.

"The conclusions of the honorable reporter have been decidedly unacceptable to Dr. Doyen. The commission has followed, during five months, twenty-three of the cases actually treated by the serum of Dr. Doyen.

"Its report is: One case is shown—one only—without recurrence for four years and a half. Two cases have remained stationary. Twenty cases have appeared to increase.

"Mediocre condition truly! The report adds that several cases subjected to the same treatment in special clinics have not given better results. Dr. Delbert has then concluded: 'Nothing which the commission has observed permits them to think that the treatment of Mons. Doyen has a favorable action on cancer.' And this conclusion, given unanimously, has been adopted by the Society of Surgery without discussion. Dr. Doyen was present at this lecture, but the rules of the Society permit only its members the right of speaking, and since Dr. Doyen is not a member of the Society of Surgery he was only able to be the silent witness of an execution which seemed to irritate him. Therefore, he proposes to make an appeal against this judgment next October, when the next Congress of Surgery will assemble. The commission has shown that the affected cases became worse. Dr. Doyen will show that they became better. But will the demonstration of Dr. Doyen convinced the hesitant?"

E. Frederick.

Paris, July 15th, 1905.

News of the Month.

THE INSTALLATION OF DR. J. N. E. BROWN AS SUPERINTENDENT OF TORONTO GENERAL HOSPITAL.

Dr. John N. Elliott Brown was formally installed on July 26th as the new Superintendent of the Toronto General Hospital. The function was informal, and attended only by the members of the staff and a few of the medical profession, invitations being issued only to members of the staff.

After being introduced by Mr. J. W. Flavelle, Dr. Brown made a short reply (published in this issue), in which he said that he hoped the co-operative relationships between the Board of Trustees and the profession would continue as they had done in the past. Unity among the different departments of the Hospital was what he would strive to attain, and he would endeavor to make them an harmonious whole.

Mr. J. W. Flavelle said that the rich men of Toronto should not be compared with those of other cities in the Dominion. "The Toronto men's money as a rule is actively engaged in their business," he continued, "and it is needed from day to day to keep their affairs in good running order. There are very few men in Toronto who could make a large donation without feeling the loss badly. It is not because they are not generous, but it is because they do not keep their money in stocks bearing a low rate of interest, which can be turned over to a hospital. I want the citizens of Toronto to understand that we have $600,000 to be raised by means of subscriptions before the new hospital will be free of debt."

Among the others who spoke were Dr. R. A. Reeve, Dean of the Medical Faculty; Dr. Grasett, of the Surgical Staff; Dr. Davidson, of the Medical Staff, and Dr. Bruce L. Riordan. At the conclusion of the installation, refreshments were served in the Nurses' Home.

Dr. John N. Elliott Brown was born in the county of Oxford. His family is prominent in Western Ontario. He was educated in the county schools and in the St. Mary's Collegiate Institute. Dr. Brown received his medical education in the University of Toronto, winning the silver medal at his graduation. For a year he was a member of the house staff of Toronto General Hospital.

Dr. Brown practised medicine for five years in Toronto. On the establishment of government in the Yukon, Dr. Brown accompanied Governor Ogilvie's party, and for six years served as Territorial Secretary. He also acted as Medical Health Officer of the Yukon. Since his retirement from the North he has taken graduate work in Toronto and in Johns Hopkins, Baltimore.

INTERNATIONAL CONGRESS OF PHYSIOTHERAPY.

The first International Congress of Physiotherapy was held at Liege, Belgium, on the 12th, 13th, 14th and 15th of August, 1905, under the patronage of the Government of Belgium, and under the honorary presidency of Baron Maurice Van Der Bruggen, Minister of Agriculture.

Electrotherapy, radiotherapy, phototherapy, thermotherapy, as well as the therapeutics of climate, air, gymnastics, massage, and other physical methods of combatting disease, were dealt with at this Congress, which also devoted considerable attention to the place which treatment by physical methods occupies in the courses of instruction in medicine in various countries and the best method of energetically repressing empiricism and abuse of these valuable therapeutic agencies.

An exhibition of physiotherapeutic apparatus, books, brochures, radiographs, also photographs of hospitals and other institutions where treatment by physical methods is carried on, was held in connection with the Congress.

Dr. Charles R. Dickson was invited to participate in the proceedings, and was appointed to the American Committee of the Congress, but was unable to attend.

THE NATIONAL FIRST AID ASSOCIATION OF AMERICA.

The first aid movement has never attained such proportions in the United States as it has reached in Great Britain, the home of this movement, or many foreign countries, notably Germany and France, but all this is to be changed.

A short time since advice was sought from those who have devoted attention to the subject, for it has long been the wish of many philanthropists on the other side of the line that they might possess an organization similar in objects, aims and scope to the celebrated St. John Ambulance Association, of London,

England, the parent of ambulance associations and first aid societies.

The result of all this interchange of ideas has been crystallized and there has recently been formed the National First Aid Association of America, chartered by the District of Columbia, with a central office in Boston and branch offices in Washington, New York and Philadelphia. The President of the new organization is the famous philanthropist Clara Barton, widely known as the founder of the American Red Cross Society, and whose work has been recognized in material form by almost every crowned head in Europe. Associated with her are Mrs. J. Sewall Reid, Vice-President; Roscoe G. Wells, Assistant to President; H. H. Hartung, M.D., Treasurer and Medical Director; Miss Mary I. Kensel, Secretary, and an Advisory Board consisting of Lieut.-Gen. Nelson A. Miles, Boston; Eugene Underhill, M.D., Philadelphia; ex-Gov. John L. Bates, Boston; Charles R. Dickson, Toronto, and Joseph Gardiner, M.D., Bedford, Indiana.

No time is being lost by the Association, as it has already affiliated several other bodies, including the well-known Philadelphia School for Nurses.

The work is taken up under various divisions, viz., Independent Class, Railroad, Y.M.C.A., Fire and Police Departments, and Nursing.

The career of the Association will be watched with interest by philanthropists of all lands, and we wish it every success.

QUARTER CENTURY COMMEMORATION OF BURROUGHS WELLCOME & CO., LONDON, ENG.

On Saturday, July 15th, 1905, the occasion of Burroughs Wellcome & Co. Quarter Century Commemoration, the members of the Society of Chemical Industry and a number of medical, pharmaceutical, scientific and other distinguished guests paid a visit to the firm's works at Dartford, Kent, and to the Wellcome Club and Institute, founded for the benefit of the employees. The guests were conveyed by three special trains, two from Charing Cross and one from Cannon Street. Upon arrival at the station an alarm of fire was given from the platform by means of a special button, and the proceedings commenced with a smart display of fire drill by the firm's private brigade. The guests numbered about two thousand, and were entertained to luncheon in a large marquee erected in the club grounds.

After the loyal toasts, Mr. Wellcome proposed the "Society of Chemical Industry." Dr. W. H. Nichols, the President, replied,

and referred to the wonderful organization shown in the firm's works, and in the arrangements for the reception and entertainment of the visitors during the day.

Mr. Wellcome proposed "The Employees," and presented them with a silver gilt cup, in remembrance of the fact that the Wellcome Cricket Club had won the championship of the Chemists' and Druggists' Cricket League for five years in succession. Mr. R. Clay Sudlow, General Manager, replied.

Professor Armstrong proposed the toast of "Burroughs Wellcome & Co.," and referred to the fact that every important expedition which had started from British or foreign shores during recent years had been equipped by the firm.

After Mr. Wellcome had replied, "Medicine and Pharmacy" was proposed by Mr. A. Gordon Salamon, the toast being coupled with the names of Sir James Dick, Hon. Surg. to H. M. the King, and Mr. R. A. Robinson, L.C.C. (President of the Pharmaceutical Society of Great Britain).

Sir James Dick, K.C.B. (Hon. Surgeon to the King, late Director-General of Medical Department of the Navy): Mr. Chairman, ladies and gentlemen,—Mr. Wellcome has said that his firm's chemical industry is in its infancy. Well, I thoroughly endorse every word of that, as a few years ago I had the honor of going over these works when there were only three hundred employees, and to-day, after I think about ten years, they number more than thirteen hundred. I have been perfectly astonished at the immense progress that has been made in these works, and the great assistance which he and his firm have given the medical profession at large. On their behalf I return him our best thanks, and fully endorse all that has been said in the telegrams from those distinguished men, Sir Douglas Powell and others. When I look back upon my career and see what the early struggles were, and think with regard to pharmacy and the prescribing of medicine of the ease and comfort with which it is done now, I am thankful for the accuracy and reliability of all the products which Mr. Wellcome's firm sends out. I beg that Mr. Wellcome and the firm will accept the best thanks of the medical profession for the immense assistance which he has given them. (Cheers.)

Alderman R. A. Robinson, J.P., L.C.C. (President of the Pharmaceutical Society of Great Britain): Mr. and Mrs. Wellcome, Mr. Salamon, ladies and gentlemen,—I despair of making my voice heard in this great and magnificent assembly, but it is my duty, and equally my pleasure, on behalf of pharmacy to return you our warmest thanks for the great kindness we have received at your hands. Sir James Dick feels the gratitude of the medical profession to our host of to-day. I do not know what they think when they see that the death-rate is down to eleven

per thousand, and what is going to happen to us in the near future if this goes on. I must not be behind the medical profession in chivalry, and I am very glad to know that our efforts are so useful in this great community, and I am quite ready to attribute a considerable share of it to the exertions of our host of to-day. I am quite ready, also, to think imperially and to act imperially, and I believe pharmacy, when it is called upon, will not be behindhand in being always ready to come forward, and to think imperially, and to preserve, so far as we can, the great interests of this country for our own countrymen. I regard Mr. Wellcome as one of our own countrymen. It is quite true that I met him first in the United States. Since then we know the strenuous exertions he has made and the great success that has attended his exertions in this country, and I am quite sure no Englishman begrudges the great success he has attained. On behalf of British pharmacy we gladly recognize any efforts that are made for the protection, the well-being, and the health of the community. I desire on behalf of pharmacy to assure Mr. Wellcome how delighted the members of the Pharmaceutical Society are to be his guests to-day, and to wish him every prosperity in the years to come.

After luncheon the programme of entertainments was continued with athletic sports, maypole dances, garland and sword drill by employees, open-air concert, fire-works, illuminations, etc. The prizes were distributed by Lady Manson, and Sir Patrick Manson, speaking at one of the other functions, said that he felt that to-day had been an object lesson to all of them, not only of the heartfelt interest Mr. Wellcome had in the welfare of his employees, but of the wonderful organization of the firm, as exemplified in the forethought which had provided so bountifully for the comfort and pleasure of everyone throughout the day, and by the precision with which a wonderful programme had been carried through.

If he were asked to name the key-note of Mr. Wellcome's success, he would answer "simplicity," and having in memory the old-fashioned prescriptions in which it was thought necessary to have twenty-five ingredients, he would like to express his thanks, and that of other members of the medical profession, to Mr. Wellcome for the marvellous way in which he had helped them in their work. Especially in his own particular sphere of interest—namely, tropical medicine—he was in a position to know and to appreciate the debt of gratitude they owed Mr. Wellcome for his liberality in initiating and supporting research work. The results had already been most valuable, and the promise was greater still.

ITEMS OF INTEREST.

Canadians Honored.—We extend our hearty congratulations to Mr. Irving H. Cameron, of Toronto, and Dr. F. J. Shepherd, of Montreal, on being so signally honored by the University of Edinburgh recently by having conferred upon them the degree of LL.D. It is an honor, not only to the gentlemen named, but to Canada as well.

The American Electro-Therapeutic Association.—The fifteenth annual meeting of the American Electro-Therapeutic Association will be held at the Academy of Medicine, in New York, on the 19th, 20th and 21st of September, 1905. An excellent programme of papers is assured, and there will be an exhibition of electro-therapeutic apparatus in the grill room of the Academy

Canadian Office of Denver Chemical Manufacturing Co.—The recent establishment of a branch office and laboratory in Montreal by Antiphlogistine people bespeaks progress for this enterprising concern—The Denver Chemical Mfg. Co. Maintaining numerous branches, one at Denver Col., one in Sydney, Australia, and another in London, Eng., in addition to the main office and laboratory in New York City, evidences success.

Canadian Medical Association.—Owing to our going to press as usual on the 21st, which we now find to be essential on account of our rapidly increasing circulation, we are unable to report the meeting of the Canadian Medical Association till next issue. We hope to be able to give our readers an abstract of the meeting in the October number, though for this we depend upon our friend, Dr. Geo. Elliott, the General Secretary, being able to get hold of a medical stenographer on his arrival at Halifax. We trust this year's meeting will be a huge success, and extremely regret our inability to get away to swell its attendance by even one.

A New Rule at Toronto General Hospital.—The following circular letter has been issued to the profession by the Toronto General Hospital, which explains itself: "*Dear Doctor,*—I have the honor to inform you of the following rule adopted by the Board of Trustees of the Toronto General Hospital: 'Surgeons who are not members of the staff who desire to perform operations in the

theatre, may do so on private and semi-private patients only, with the approval of a member of the surgical staff, provided that such member be present at the operation.' I have the honor to be, J. N. E. Brown, Superintendent." We consider this a step in the right direction.

Western School of Medicine, London, Ont.—On page ci. of this number of THE JOURNAL will be found the advertisement of the Western School of Medicine, London, Ont. This teaching body has a creditable record, especially recently, when their students did remarkably well at the Council examinations. "The Western" endeavors to give each student individual attention, so that, with ordinary application on his part during the session, he need have little fear of the exams. Any young man intending to go in for a course in medicine should address Dr. W. W. English, London, Ont., who will send him all information as to lectures, fees, etc.

Toronto Nurses' Registry.—We call the attention of our readers to the announcement, appearing on page xv. of this issue of our JOURNAL, of the Toronto Nurses' Registry, as recently opened by Miss Barwick, 644 Spadina Avenue, Toronto. The Registry has on its list almost all of the graduate nurses resident in Toronto, no matter from what hospital they come. Miss Barwick wishes the profession to know that, by phoning North 1060, she can supply a nurse for any purpose, from an hourly nurse who, for a small charge, will prepare a patient and room for operation, or attend an obstetrical case, or a nurse from $14 to $18 a week for cases of any kind, all the young ladies being graduates and experts. We will be glad to hear, later on, that the new Registry is a success and patronized by practitioners. Miss Barwick is herself a graduate of Johns Hopkins Hospital, Baltimore, Md., but prefers to remain in Toronto, which is her home.

The Physician's Library.

BOOK REVIEWS.

The Pharmacopeia of the United States of America. Eighth Decennial Revision. By authority of the United States Pharmacopeial Convention, held at Washington, A.D. 1900. Revised by the Committee of Revision and published by the Board of Trustees. Official from September 1st, 1905. Philadelphia: P. Blakiston's Son & Co., agents.

In this revised edition of "The Pharmacopeia of the United States of America," special attention is called to the changes in strength of tincture of aconite, tincture of veratrum, and tincture of strophanthus, which are as follows: The strength of tincture of aconite has been reduced from 35 per cent. to 10 per cent., and that of tincture of veratrum from 40 per cent. to 10 per cent. The strength of tincture of strophanthus has been increased from 5 per cent. to 10 per cent. These changes have been made in order to conform to the standards adopted by the International Conference on Patent Remedies, held at Brussels in September, 1902, the object being to make uniform the strength of patent remedies in all parts of the world. A. J. H.

Diseases of the Nose and Throat. By D. Braden Kyle, M.D., Professor of Laryngology and Rhinology, Jefferson Medical College, Philadelphia; Consulting Laryngologist, Rhinologist and Otologist, St. Agnes' Hospital. Third edition, thoroughly revised and enlarged. Octavo volume of 669 pages, with 175 illustrations, and 6 chromo-lithographic plates. Philadelphia, New York, London: W. B. Saunders & Company. 1904. Cloth, $4.00 net; sheep or half Morocco, $5.00 net.

In presenting to the profession the third edition of this work the general plan of the previous editions has not been materially altered. The entire book has been carefully revised and such additions have been made as were rendered necessary by recent medical progress. The most important alterations and additions have been made in the chapters on Keratosis, Epidemic Influenza, Gersuny's Paraffine Method for the correction of nasal deformities, and in the one on the X-Rays in the treatment of carcinoma. The etiology and treatment of hay fever has been practically re-

written and much enlarged, as has also the operative treatment of deformities of the nasal septum. In the chapter devoted to general considerations of mucous membranes and hay fever, the author records the results of his experience in the chemistry of the saliva and nasal secretions in relation to diagnosis and treatment. The literature has been carefully reviewed, and a number of new illustrations added, thus bringing the work absolutely down to date.

The Role of Modern Dietetics in the Causation of Disease. By J. Sim Wallace, M.D., D.Sc., L.D.S., Hon. Dental Surgeon West End Hospital for Nervous Diseases, and Assistant Dental Surgeon National Dental Hospital, W. London: Bailliere, Tindall and Cox, 8 Henrietta Street, Covent Garden. 1905.

This book is a collection of essays which appeared originally in the *British Medical Journal, The Lancet,* the *Medical Press,* the *British Dental Journal,* and the *British Journal of Dental Science.* Some now appear for the first time. They constitute a coherent whole based on biological facts. The work is a petition against the present day craze for the ultra refinement of foodstuffs, advocating that such refinement impoverishes the amount of bone-forming salts, phosphates, etc., and diminishes mastication and its beneficent effects. Many other attractive and instructive chapters are contained in this volume, as Chapter V. on nasal obstruction and mouth-breathing, its causal relation to unsuitable feeding of children. The sections on the physiology and pathology of the teeth occupy considerable space, and will be found beneficial reading for the layman as well as for the profession. W. H. P.

Treatise on Orthopedic Surgery. By Edward H. Bradford, M.D., Surgeon to the Boston Children's Hospital; Consulting Surgeon to the Boston City Hospital; Professor of Orthopedic Surgery, Harvard Medical School; and Robert W. Lovett, M.D., Surgeon to the Infants' Hospital and to the Peabody Home for Crippled Children; Assistant Surgeon to the Boston Children's Hospital; Assistant in Orthopedic Surgery, Harvard Medical School. Third edition, illustrated by 592 engravings. New York: William Wood & Co.

This work by Bradford and Lovett has long been considered a standard authority. The first edition was published in 1890, and was at once recognized as setting forth worthily the principles and practice of modern orthopedic surgery as it was regarded by American surgeons.

The work was not conceived in any spirit of narrowness. The time had passed when the surgeon who was ambitious to do justice to himself or his patient could rely upon straps and braces

to do the work which could be properly accomplished only by him who has an intimate knowledge of the possibilities brought within his reach in the practice of aseptic surgery; in a thorough familiarity with the principles of treatment so effectually demonstrated by the advocates of physical methods of training and massage as seen in the modern orthopedic gymnasium; and in possessing not only a natural genius for mechanics, but in having acquired a knowledge of practical mechanics which results from education. As no orthopedic surgeon who is lacking in the above three elements has a foundation on which to build success, so no book that comes short in any of these respects can worthily claim to represent modern orthopedic surgery.

In the fifteen years which have elapsed since the first edition was published, several important topics have come well into the notice of the profession, elucidated and developed by orthopedic surgeons, subjects which previously had received but little attention or had been attended with but little success in practice. Especially is this true of congenital dislocation of the hip, of roto-lateral curvature of the spine, of traumatic and non-traumatic coxavara and of the non-tuberculous diseases of the joints. These subjects have all received due consideration in this edition, and it may fairly be said that this treatise is the safest and most complete storehouse of information on orthopedic surgery accessible to English readers.

Seeing that the work is published by Wood & Co., it is needless to add that the publishers' work is well done. B. E. M.

Archives of the Roentgen Ray and Allied Phenomena. (Formerly *Archives of Skiagraphy.*) An International Monthly Review of the Practice of Physical Therapeutics. London: Rebman Limited, 129 Shaftesbury Avenue, W.C. New York: Rebman Company, 1123 Broadway. Annual subscription, payable in advance, $4.00.

This most meritorious exponent of the last and best word in physio-therapy has for its editors, Clarence A. Wright, F.R.C.S. (Edin.), F.F.P.S.G., and J. Hall-Edwards, L.R.C.P. (Edin.), F.R.P.S., with Henry G. Piffard, M.D., LL.D., as American Editor, and M. le Docteur J. Belot, Paris, French correspondent.

Associated with this able and well-known editorial corps is a large staff of collaborators equally famous as authorities in this important field, representative men from Vienna, Lyons, Nantes, Chemoga, New York, London, Liverpool, Edinburgh, Glasgow, etc.

A large amount of valuable material can always be found in the original articles, and equally valuable are the notes and

abstracts, a prominent feature of this publication. The full-page plates, reproducing radiographs of cases, a number of which appear in each issue, are truly superb, and masterpieces of their kind, such is the care bestowed on their preparation. Illustrations also frequently accompany the text, and materially assist in its elucidation.

This handsome magazine may with confidence be recommended to all practitioners who desire to keep posted on the rapid advances which are being made in the rational treatment of disease by physical methods. C. R. D.

Exercises in Practical Physiology. By Augustus D. Waller, M.D., F.R.S. Part II., Exercises and Demonstrations in Chemical and Physical Physiology, by Augustus D. Waller and W. Legge Symes. 39 Paternoster Row, London, New York and Bombay: Longmans, Green & Co. 1905.

These exercises are adapted for practical work in the laboratory. This volume describes experiments with blood and circulation, digestion, muscle, urine and respiration.

The descriptive matter is full and plain, the illustrations are good, and the book will serve as an excellent guide to those who wish to make these experiments. A. E.

Addresses and Other Papers. By Wm. Williams Keen, M.D., LL.D., F.R.C.S. (Hon.), Professor of Surgery, Jefferson Medical College, Philadelphia. Illustrated. Philadelphia and London: W. B. Saunders & Co. Canadian Agents: J. A. Carveth & Co., Limited, Toronto.

Dr. Keen has placed the profession at large under a debt of gratitude to him for the pains he has taken in collecting the material as found in his book, "Addresses and Other Papers." We don't know of many books published during the last decade that contain as much intensely interesting matter as this one, and we feel that it will not take long to run off the first edition, so satisfactory should be its sale.

It contains 25 chapters, and in all nearly 450 pages. It would be difficult to dilate upon many of the most valuable contributions, but one or two that proved most interesting to us were the chapters entitled "Vivisection and Brain Surgery," "The Debt of the Public to the Medical Profession," "The Progress of Surgery in the 19th Century," and "Surgical Reminiscences of the Civil War." Other chapters include "The Early History of Practical Anatomy," "The Real Rewards of Medicine," "Medicine as a Career for Educated Men," "The Ideal Physician," and all are worth reading. W. A. Y.

The Health Resorts of Europe. A Medical and Popular Guide to the Mineral Springs, Climatic, Mountain and Seaside Health Resorts, Milk, Whey, Grape, Earth, Mud, Sand, and Air Cures of Europe. By Thos. Linn, M.D. (of Nice). With Appendices: (*a*) British and Foreign Hydropathic Establishments, Sanatoria, Private Cliniques, etc. (*b*) The British Balneological and Climatological Society. (*c*) The Continental Anglo-American Medical Society. (*d*) The American Dental Society of Europe, etc. (*e*) The Open Air Cure—British and Foreign Sanatoria for the treatment of Lung Diseases. General Plan: The Resorts are grouped according to their countries, each article showing the route and price from London, its Topography and Climatology, Springs and indications, Hotels, Doctors, Schools, etc. New edition just published. 254 pp., cr. 8vo, neatly bound in scarlet cloth. Publishers: The Health Resorts Bureau, 27 Chancery Lane, London, W.C. Price, 2s. 6d. net.

The fact that Dr. Linn's Health Resorts of Europe has now reached its tenth year of publication is a tribute to its usefulness and popularity as a reliable guide to European Mineral Springs and Climatic Stations. Every effort is made to obtain authentic information from the authorities at the various Baths and Spas.

The Quarterly Medical Journal says:—"We gladly welcome the appearance of this excellent treatise. The young practitioner will find it most useful and instructive. It abounds in information of every possible value. We cordially recommend it to the profession."

The Hospitals—"To guide invalids in their choice where they may best escape the rigors of winter, Dr. Linn's *Health Resorts of Europe* is likely to be of much service. It is nicely written, and gives a good deal of information of many kinds."

First Aid to the Injured and Sick. An Advanced Ambulance Hand-book. By F. J. Warwick, B.A., M.B. (Cantab.), M.R.C.S., L.S.A., Associate of King's College, London; Captain, Royal Army Medical Corps (Vol's.), London Companies; Lecturer and Examiner in Ambulance, Home Nursing and Hygiene to the Education Department, London County Council; Lecturer on Ambulance to the late School Board for London; Honorary Life Member and late Lecturer and Examiner to the St. John Ambulance Association; and Honorary Divisional Surgeon, St. John Ambulance Brigade; and A. C. Tunstall, M.D., F.R.C.S. (Ed.), Captain commanding the Fourth, or City of London, Volunteer

Infantry Brigade Bearer Company; Honorary Associate of the Order of the Hospital of St. John of Jerusalem in England; Honorary Life Member, Lecturer and Examiner of the St. John Ambulance Association; Honorary Divisional Surgeon of the St. John Ambulance Brigade; Surgeon to the French Hospital and to the Children's Home Hospital. Third and revised edition. 14th thousand. Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent & Co., Ltd. 1903. Price, 1s. net. Pp. xiii.-236. Copiously illustrated.

Great Britain, the home of First Aid, is still easily the chief centre of that humanitarian movement. Nowhere else has it made such progress, perhaps because in no other country has it been more systematically carried on, nor more sympathetically received, hence we have many excellent hand-books on the subject from the Old Country, large and small. Of the latter variety, one of the best, if not, indeed, the best, for advanced classes in First Aid is the Warwick and Tunstall manual. A marked feature of the book is the large number of illustrations, many of which depict various stages of the respective methods under consideration. The necessity for a fourth edition in the space of three years exemplifies the popularity of this little work.

C. R. D.

American Edition of Nothnagel's Practice.—Diseases of the Blood. (Anemia, Chlorosis, Leukemia, Pseudoleukemia.) By Dr. P. Ehrlich, of Frankfort-on-the-Main; Dr. A. Lazarus, of Charlottenburg; Dr. K. von Noorden, of Frankfort-on-the-Main; and Dr. Felix Pinkus, of Berlin. Entire volume edited, with additions, by Alfred Stengel, M.D., Professor of Clinical Medicine, University of Pennsylvania. Octavo volume of 714 pages, fully illustrated. Philadelphia and London: W. B. Saunders & Company. J. A. Carveth & Co., 434 Yonge Street, Toronto. 1905. Cloth, $5.00 net; half Morocco, $6.00 net.

This is the ninth volume of the series published in English. We are assured by the publishers that the three remaining volumes will be issued shortly. Dr. Stengel, the general editor of the work, edits this volume, which is one of the best in the series, both as to matter and form. We had occasion to express disappointment in one or two of the preceding volumes at the poor work of the translator and equally indifferent work of the editor. It is to be hoped that the remaining volumes will receive as careful supervision as the present one.

So far as the reviewer has been able to examine this volume, there is little in it to which to take exception. All the articles are very full, and little, if anything, in the literature on these subjects has been overlooked. The editor has been especially careful in regard to the work of the American and English writers on these subjects, few, if any, of their contributions having been overlooked.

The article on Pernicious Anemia is an admirable one. The author (Lazarus) adheres to Biermer's original title of Progressive Pernicious Anemia. The use of the term *progressive* seems unfortunate because, in the first place, there are occasional cases of recovery, and in the second place, in all cases, even the fatal ones, the disease is rarely progressive, but usually presents a history of periods of marked improvement, and more or less grave relapse. This fact is too often overlooked in estimating the efficacy of treatment, to wit, the high reputation of arsenic.

V. Noorden's article on Chlorosis is much longer (200 pages), and more discursive than one would look for from so able a writer. He finds it difficult to establish the claim of this condition to be considered as a separate disease, and not as simply a secondary anemia. In the definition he says: "The disease apparently develops spontaneously—at all events all the causes which lead to similar extreme anemias are wanting." Then, as determining causes, he admits that the co-operation of such conditions as unfavorable nutritive conditions, home conditions, unsanitary occupations, etc., is not to be denied.

He believes that chlorosis is founded upon a functional weakness of the hematopoietic organs. But do not many of the secondary anemias depend upon the same condition? He says the disease occurs exclusively among females, but typical cases have been met with in males. The theory that a low color-index is diagnostic is abandoned, as such an index is often met with in simple anemias. The pathology of the condition known as chlorosis must be made much more clear before we can unreservedly accept it as a special disease. There are many cases of anemia of a chlorotic type met with in this country in young females, less frequently in males, but very few that can be designated as typical chlorosis.

The volume is excellent, and all doing advanced work in diseases of the blood will find it invaluable. A. M'P.

Physical Diagnosis. By Richard C. Cabot, M.D., Instructor in Medicine in Harvard University. Third edition, revised and enlarged, with five plates and 240 figures in the text. New York: Wm. Wood & Co. 1905.

Dr. Cabot's book comprises a little over 500 pages, and in twenty-five chapters gives the practitioner in digested form "an

account of the diagnostic methods and processes needed by competent practitioners of the present date." The author very wisely has cut out a lot of unnecessary ground covered in most works on this subject, rendering the volume easily handled, and yet containing all the matter necessary in one devoted to "Physical Diagnosis."

Carcinoma of the Rectum: Its Diagnosis and Treatment. By F. Swinford Edwards, F.R.C.S., Senior Surgeon of St. Mark's Hospital for Diseases of the Rectum, and to St. Peter's Hospital for Urinary Diseases; Surgeon to the West London Hospital, etc. London: Baillière, Tindall & Cox, 8 Henrietta Street, Covent Garden, 1905. Canadian agents: J. A. Carveth & Co., Ltd., 434 Yonge Street, Toronto, and Chandler & Massey, Ltd., Toronto.

There has been much advance in the surgical treatment of carcinoma in recent years, and the author presents in a little book of less than fifty pages his experience with the disease, with the results obtained by operations for the removal of the growths by the sacral route, based upon forty consecutive cases. In each of these cases upwards of eighteen months have elapsed since the operation was performed. E. H. A.

Dispensing Made Easy. With Numerous Formulæ and Practical Hints to Secure Simplicity, Rapidity and Economy. By Wm. G. Sutherland, M.B. (Aberd.), formerly House Surgeon Queen's Jubilee Hospital, Earl's Court, London, S.W.; Civil Surgeon-in-Charge, Orange River Military Hospital, Boer War, 1900, etc., etc. Second edition, revised. Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent & Co., Ltd. 1905.

The contents have been thoroughly revised and brought up to date, and is a decided step in advance of the previous edition, which was exhausted in an exceedingly short period. A. J. H.

The Surgical Assistant. By W. M. Buckner. New York: International Journal of Surgery Co. Price, $2.00.

This well-illustrated volume should meet with a hearty welcome from all house surgeons and young practitioners. We have no lack of books with full instructions to the surgeon, but the assistant has so far been left to fit himself in as his experience or his wits suggest that he may be most useful to his chief. The book contains the information necessary to make one a really useful and unofficious assistant, and should do much to dispel the surgeon's dread of operating outside the hospital with none but

the family physician to assist. Special attention may be called to the section dealing with individual operations. Practically all modern operations are described briefly and concisely, the duties of the operator and the assistant being pointed out in every step. The illustrations are new and good; a special illustrated section on surgical instruments is appended. E. A. M'C.

Saunders' Pocket Medical Formulary. With an appendix containing posological table; formulæ and doses for hypodermic medication; poisons and their antidotes; diameters of the female pelvis and fetal head; obstetrical table; diet list for various diseases; materiæ and drugs; treatment of asphyxia from drowning; surgical remembrancer; tables of incompatibles; eruptive fevers; weighs and measures, etc. By Wm. M. Powell, author of "Essentials of Diseases of Children"; member of the Philadelphia Pathological Society, etc. Sixth edition. Philadelphia: W. B. Saunders & Co. 1900.

The sixth edition of Saunders' "Pocket Medical Formulary" has been revised and some two hundred new formulæ added. Blank pages are left for additional formulæ, and while many would think there were many important portions neglected, as their favorite prescriptions are not noted, still there is much variety and food for thought.

Solomon, the wise, hath said, "In the multitude of counsellors wisdom is established," and this certainly applies in medicine, and a pocket book which affords a ready reference to the various combinations of remedial agents employed by our most successful practitioners, fills a want in this direction, and affords suggestions which cannot but prove of value to those most interested.

The National Standard Dispensatory, by Hare, Caspari, and Rusby will be ready for sale September 1st, the date when the new U. S. Pharmacopeia goes into effect. By authority of the Convention it will contain every article in the new U. S. P., as well as the explanations and instructions necessary to understand and apply the brief statements to which the official guide is restricted. "The National Standard Dispensatory" is a new work, a distinct improvement upon anything of the kind hitherto published. Its authors, Dr. H. A. Hare, of Philadelphia; Prof. Charles Caspari, Jr., of Baltimore; and Prof. H. H. Rusby, of New York, are all men of the highest eminence in their respective fields, and are all members of the Revision Committee of the U. S. P. They have carefully matured its plan so as to render the maximum service to both professions it interests, namely,

pharmacy and medicine. It not only covers the new U. S. P., as aforesaid (and the chief foreign pharmacopeias as well), but the scarcely less important domain of the unofficial drugs and preparations so largely used. It offers full information regarding the pharmacognosy, the pharmacy, and the medical action and uses of all substances used in pharmacy and medicine at the present day. Pharmaceutical methods and products are covered, with descriptions of the most approved apparatus and tests. Dr. Hare has again justified his reputation for knowing what is wanted by giving a compact and direct presentation of modern therapeutics in the section dealing with that subject in the case of each drug. The appendix contains useful tables, formulas, etc., for practical work. There are two indexes, the general, covering all the names in the text, and so affording a guide to the drugs of the entire globe, and the therapeutic index, where, under each disease, are given all the drugs used in its treatment, with reference to the page where the conditions indicating a choice are found. This work of the maximum utility is alone in the field.

Atlas and Text-Book of Topographic and Applied Anatomy. By Prof. Dr. O. Schultze, of Wurzburg. Edited, with additions, by George D. Stewart, M.D., Professor of Anatomy and Clinical Surgery, University and Bellevue Hospital Medical College, New York. Large quarto volume of 187 pages, containing 25 figures on 22 colored lithographic plates, and 89 text-cuts, 60 in colors. Philadelphia and London: W. B. Saunders & Co. 1905. Canadian agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto. Cloth, $5.50, net.

In the preparation of this book Professor Schultze had in mind the need of a work that would combine the features of a text-book with the educational advantages of an atlas. He has produced a work of great merit, and not alone the anatomist, but more particularly the general practitioner, will find it of constant value. Professor Schultze has presented his own methods for the study of anatomy—methods proved to be of value by many years of clinical study. Throughout the work the value of the knowledge of topographic anatomy in bedside diagnosis is emphasized. The many colored lithographic plates and the numerous text-cuts, sixty of which are in colors, are of exceptional excellence. Indeed, both for accuracy of detail and artistic beauty we have never seen their equal. The greater portion of the dissections from which these illustrations have been made are from the author's own preparations. Dr. George D. Stewart, in editing the work, has added many valuable notes. S.

A Manual of Midwifer y HENRY JELLETT, M.D., F.R.C.P.I. New York: Willia ood & Co. 1905.

Dr. Johnson's dictur about books you can hold in your hand, being, after all, the mo useful, would apply to but few medical books. Perhaps that may be the reason why we are somewhat unwilling to lose one of these few and replace the familiar and favorite hand-book by Dr. Jellett, formerly Assistant Master of the Rotunda Hospital, Dublin, by this volume. However, one can always keep both books. In the present entirely new work of some eleven or twelve hundred pages, with nine plates and four hundred and sixty-seven illustrations, Dr. Jellett has had the assistance of four well-known Dublin physicians, Dr. S. W. R. Dawson, H. C. Drury, I. G. Moorhead and R. J. Rowlette, who have had charge of those parts of the book requiring a special knowledge of anatomy, general medicine, pathology, and mental disease.

This book is, without doubt, a good one, the explanations and statements are full, clear, and satisfactory, and every effort has been made by the author to avail himself of the most approved modern views and methods; *e. g.,* Bossi's Dilater and the use of it is dealt with. Part VI., on "The Pathology of Pregnancy," is, perhaps, somewhat short, intercurrent diseases of pregnancy not occupying very much space. The book is concluded by a section of twenty pages on "The Infant," which, though short, contains much valuable information. H. MACM.

Dr. Stevens' New Work on the Motor Apparatus of the Eyes.—F. A. Davis Company, of Philadelphia, have the pleasure of announcing the early publication of a work long expected and urgently demanded by the medical profession. It is a treatise on the motor apparatus of the eyes, embracing an exposition of the anomalies of the ocular adjustments and their treatment, with the anatomy and physiology of the eye muscles and their accessories, by Dr. George T. Stevens, of New York. The reputation of the author as one of the most original thinkers and foremost investigators in his profession, and one whose works have exerted a profound influence on the views, not only of oculists, but of practitioners in other branches of medicine, is well known. Dr. Stevens' work is a systematic development of the subject of adjustments of the eyes. He advances the anatomy and the physiology of adjustments to perspective and the psychology of sight, and at length to the classes of anomalies as they arise from variations from normal types. From his unequaled experience he has evolved a rational and philosophic system of treatment. Thus is wrought into a continuous whole one of the most interesting, as it is one of the most important, of subjects in the science of medicine. It is to be

profusely and elegantly illustrated in colors and in black and white, mostly from the author's own drawings. The illustrations in comparative anatomy are of especial interest. The book will be found a necessity to the oculist and the neurologist, while to physicians in all branches of practice, to physiologists and psychologists it will prove a work of much value and interest. It will be complete in one royal octavo volume of about five hundred pages.

Merck's Annual Report for 1904.—

It will repay any practitioner to send to E. Merck, Darmstadt, Germany, for a copy of his annual report for 1904, just off the press. The firm will be pleased to send it to any Canadian practitioner writing for it. It furnishes a brief and impartial review of the advancements of pharmaceutical chemistry and therapeutics during the twelve months of last year, *irrespective of any interest of the firm who publish it,* and need not be regarded as being in any sense an advertisement for Merck & Co., lots of space being devoted to the pharmaceuticals manufactured by other houses. The volume comprises in all 250 pages.

We have received also an advance copy of the second supplement of "Merck's Manual of the Materia Medica," which, besides giving in detail the most important and approved remedies of recent introduction, gives a section on the treatment of cases of poisoning by different drugs. This manual is also obtainable free for the asking.

In connection with the enquiry which was recently instituted by the British Government with reference to industrial alcohol, Sir Henry Primrose and Dr. T. E. Thorpe paid a special visit to Germany to procure information as to the regulations in that country as to the use of alcohol in manufacture. The following is their report of a visit paid to the factory of Mr. E. Merck at Darmstadt:

"The new works, which are still in process of being finished as regards approaches and certain internal arrangements, are among the most complete and best appointed of their kind in the world. They consist of a number of detached and specially planned factories, under individual control and with special staffs of chemists and workmen, together occupying a very large area of ground, with convenient railway access from Arheilgen, on the Main-Neckar line. 1,200 workmen are employed, and 290 clerks and chemists. The firm deals in upwards of 6,000 products, 3,000 of which are made upon these premises. There are branch manufacturing establishments in Moscow and New York. In the latter, no preparation involving the use of alcohol is made."

Natural Science in Hygiene or The Life-History of the Non-Bacterial Parasites Affecting Men. For the use of students of Public Health. By James Rodger Watson, M.A., B.Sc., M.D., (Edin.), Diplomate in Public Health (Univ. of Camb.) Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent & Co., Ltd. Price, 1s. 6d. net.

This little work of 58 pages does not deal with Bacteriology, but gives the life histories of the grosser forms of vegetable and animal parasites which affect man. The life-cycle of a parasite, given in a semi-diagrammatic form, is utilized throughout the booklet. The book should be useful and interesting to any student of Public Health. J. J. C.

Conservative Gynecology and Electro-Therapeutics. A Practical Treatise on the Diseases of Women and Their Treatment by Electricity. By G. Betton Massey, M.D., Attending Surgeon to the American Oncologic Hospital, Philadelphia; Fellow and Ex-President of the American Electro-Therapeutic Association; Member of the Société Française d'Electro-Thérapie, American Medical Association, etc. Fourth edition, revised, re-written and greatly enlarged. Illustrated with twelve original, full-page chromo-lithographic plates; twelve full-page half-tone plates of photographs taken from nature, and 157 half-tone and photo-engravings in the text. Pages xvi.-468. Royal octavo. Extra cloth, bevelled edges. Philadelphia: F. A. Davis Co., 1914-16 Cherry Street. Price, $4.00 net.

That a fourth edition of this excellent work has been found necessary speaks well for its popularity, which is fully explained upon a careful study of its contents. Not only are instrumentation, technique and all necessary details of treatment by electrical methods of the diseases to which women are subject considered very fully, but much attention is likewise devoted to the rudiments of medical electricity, including the physics, production and control of the various currents employed by this well-known pioneer in electro-therapeutics.

To those unaware of what may be accomplished by an intelligent use of electrical methods in the treatment of female disorders, this book will prove a revelation, and it is but due to their patients that they should familiarize themselves with its teachings, even if unable to carry them out personally.

Nor can the progressive gynecologist longer afford to be unfamiliar with the *role* of electro-therapy in his field of labor, and to him the work will prove a veritable mine of information, and

he will doubtless be greatly surprised at the wide range of diseases in which electricity may be employed with benefit.

To the surgeon in general the chapters on the cataphoric destruction and sterilization of cancer may especially be commended as worthy of the most careful and serious consideration by every thoughtful man. C. R. D.

A Text-Book on the Practice of Medicine for Students and Practitioners. By James Magoffen French, A.M., M.D., formerly lecturer on the Theory and Practice of Medicine, Medical College of Ohio. Second revised edition. Illustrated by eleven full-page plates and fifty wood engravings. New York: William Wood & Company. 1905.

The first edition of this excellent work appeared in September, 1903, and we had the privilege of reviewing it in this journal in December of the same year. The second edition of the work appeared in May of the current year.

The author says: "Very few of the original statements have had to be modified or retracted, but quite a number of additions have been made in order to bring the subject matter fully up-to-date. As in the original edition, no attempt is made to record all the theories that have been advanced in the literature; but only those that are generally accepted or the truth of which is attested by the best authority."

We heartily approve of the author's laconic style and selective method—a most effective combination of forces in presenting to students the various subjects included in a work on the practice of medicine. An American author may be privileged to use the word "hobo" for tramp, but he is not entitled to write *Pediculus vestamentorum.* (Vide p. 288).

The wrong spelling of vestimentorum, which appears in both editions, is mentioned here to assist the author in correcting trifling errata what might otherwise appear in the third edition of his work.

J. J. C.

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Original Contributions.

PRESIDENT'S ADDRESS.*

BY JOHN STEWART, M.B., HALIFAX, N.S.

Friends and Colleagues,—My first duty is to thank you for the honor you have conferred upon me in electing me to preside over this meeting.

I can assure you that my pride in this great honor is tempered by a feeling of very great responsibility and a sense of marked inaptitude for the duties of this position. And in thanking this Association for an undeserved honor, I wish to thank, especially, the most earnest, energetic and cheerfully laborious Executive which any President ever had.

I wish to express my sense of obligation for the presence of His Honor, the Lieutenant-Governor, whose more than eighty years of strenuous and honorable life give exceptional value to the kind words of appreciation in which he has just welcomed our Association to this city.

Permit me also to express my pleasure in having on the platform my dear old friend and colleague, the Honorable D. McN. Parker, one of the founders of this Association.

And now I bid you welcome, welcome to this picturesque province of Nova Scotia and to the city of Halifax.

I bid you welcome on behalf of the medical men of this province; for when it became known that the Canadian Medical Association was to meet here, there came in from all over the province, from the county societies and from individual practitioners, expressions of a desire to have a share in your entertainment, and therefore it is that we are here to-day as the guests of the Medical

*Read before the Canadian Medical Association, Halifax, August, 1905.

Society of Nova Scotia, and that we have listened to the warm welcome of its President.

In welcoming you to this place I should perhaps say a few words of introduction to a city and a province, new, perhaps, to many of you. If you are interested in history you will find much here to occupy your attention.

In the early morning mists of our history we see Leif Ericson in his Viking galleys steer along our coast. Four hundred years ago the Cabots took possession of these regions for King Henry VII. And then for two hundred years the intrepid navigators of old France, De Monts, Champlain, St. Denis, LaTour, explored these bays and headlands.

If you can spare time to visit Annapolis you will find traces of the French occupation, and see still in good preservation the old powder magazine, the oldest European masonry in America north of Mexico, and built of stone brought from France. Midway in the province, you come to Grand Pre, with its crowded memories of the past, and its wide acres of fertile dyke lands, which we owe to the industry of the early French settlers. And in the extreme east you will find the historic ruins of Louisburg, where the sea birds cry over the rain-swept turf which covers many a gallant heart. Nova Scotia may indeed claim its share in thrilling memories of "old, unhappy, far-off things and battles long ago."

We can point with pride to the distinguished names of many Nova Scotians. I shall avoid the troubled waters of political life and will mention only the fact that two of the most distinguished college presidents in this country were Nova Scotians, viz., Sir J. W. Dawson, of McGill, and Rev. G. M. Grant, of Queen's. In literature we are proud of the reputation of Haliburton. The hero of Kars and the defender of Lucknow were both Nova Scotians. Our shipbuilders and our sailors have carried our name round the world, and it is safe to say that there are few ports in the world where you may not find a Nova Scotian sea captain.

This city of Halifax is crowded with historic memories. It was up this harbor that the ill-fated squadron of D'Anville, shattered and storm-tossed, came to anchor, to meet a more deadly foe than wind and wave in the pestilence which destroyed hundreds of brave soldiers. It was here that Cornwallis, stout soldier and sagacious statesman, arrived in 1749 and laid the foundations of this city. St. Paul's Church, built in 1750, is the oldest Protestant church in the Dominion of Canada, and the old churchyard of St. Paul's is one of the most interesting cemeteries in this country. In it were laid side by side the heroic dead who made the names of the *Shannon* and the *Chesapeake* famous.

In the old Provincial Building, where we hope to meet this evening, Mr. Lawrence Kavanagh stood in 1827, the first Roman Catholic member since the Reformation to represent a constituency in British dominions.

And there is another old building here, which to my mind should be full of interest for all Canadians. It was a Nova Scotian, Sir Samuel Cunard, who had the enterprise to start the first line of transatlantic steamships, and there are men in Halifax to-day who remember when the *Britannia,* the first Cunarder, came up the harbor and to the shipping office of S. Cunard & Co.

And may I draw your attention to our geographical position, and to our incomparable harbor. It has the largest dry dock on this side of the Atlantic; it is defended by one of the most powerful fortresses in the world, and at any hour of day or night, summer or winter, in any state of the tide, the largest and swiftest ships afloat may come alongside the pier, or leave it punctually, without delay or interruption.

I trust that when this Association meets next in Halifax it will find the western terminus of the fast Atlantic service safe in the keeping of the "Warden of the Honor of the North."

Finally, bear with me if I point to our educational institutions. Dalhousie University, the only undenominational college in the province, has not only supplied professors to several universities in the United States, but furnished a distinguished successor to the renowned Tait of Edinburgh, and only the other day, sent one to the University of Birmingham. We have also a medical college whose graduates are now dotted all over the Dominion and the United States, reflecting credit on their province and their Alma Mater. There is the Institution for the Deaf and Dumb, where results are obtained equal to those of any similar institution anywhere; and finally we have this School for the Blind in the hall of which we are met, which is presided over by Dr. Fraser, a gentleman second to none on this continent in the skill and success of his methods, and whose marvellous personality overcomes all disabilities and inspires all who come in contact with him.

This is not the first occasion on which the Association has met in Halifax.

In 1875 the Association first met here, and again in 1881, when the General Secretary was a young Montreal physician, whose name is now a master word in the schools of Esculapius the world over—the Regius Professor of Medicine in Oxford. At the meeting of 1881 the attendance was 53; to-day we have already registered over 200.

It is only fitting that I make reference to some of those who were with us then and who to-day are not. The President was

Dr. G. E. Fenwick, of Montreal, a distinguished surgeon, who occupied the chair of Surgery in the University of McGill for fifteen years. The Vice-President for Nova Scotia was the late Dr. R. S. Black, one of the leading physicians of Halifax for many years, a man of wide culture, and especially familiar with Spanish history and literature.

There are two names to which I wish particularly to refer in this place on account of their connection with this province and their interest in this Association. The late Dr. Edward Farrell was one of the foremost citizens of Halifax, and took a leading part in our political life, having been a member of our legislature. He was one of the founders of the Halifax Medical College, where he held the chair of Surgery from its foundation until the time of his death, and his admirably lucid, well-ordered and emphatic style made him one of the best lecturers whom I have ever heard. He was surgeon to the Victoria General Hospital for thirty years. He took a keen interest in the subject of tuberculosis, especially in the organization of methods to prevent the dissemination of the disease, and was appointed by the Dominion Government to represent us at the Congress on Tuberculosis in Berlin. And it was in the discharge of his duty as a member of a commission appointed by our own local Government, to select a site for a sanitarium, that he contracted his fatal illness, through exposure to cold and wet when driving in the country; and on the first day of this new century he passed away from among us, but the brave and cheerful spirit, the ready wit, the warm, kind heart are memories that remain.

And what can I say of Dr. Wm. Scott Muir? I may say, I believe, that no member of this Association was better loved or more heartily welcomed to its meetings. He had been a Vice-President, and upon at least one occasion he was nominated for the Presidentship, but generously insisted on giving way to others. He was a very regular attendant at our meetings, and his stalwart figure and cheery voice had become familiar to the profession throughout Canada. His business ability and his knowledge of affairs made him invaluable in committees, and his contributions to the scientific work of the Association were marked by keen observation and practical common-sense. He was my own dear friend, and I shall not trust myself to say more of what his loss has been to us.

And so one by one, just as we learned to value them more, our comrades fall, and what can we say but

> "Fare you well:
> Hereafter, in a better world than this,
> I shall desire more love and knowledge of you."

It is perhaps a weighty sense of the responsible position in

which you have placed me that gives to my thoughts to-day a somewhat serious turn.

I look upon this great assembly, I think of the years of study, the expensive education, the physical and intellectual toil, the laborious days and anxious nights, and when I consider the results I am tempted to ask—what is the good of it all? We toil to save, and how often it is that the valuable lives, the bread-winners, the wise, the strong, the true, are taken, and we succeed in saving the idle, the dissolute, the degenerate. There is only a sense of futility, there is horror in the thought that our art may in unworthy hands be degraded to be a servant of evil passions.

And have all these then—our brothers and our forebears—died in vain? Have their lives been wasted, and would it have been better had they had no part in aught that's done beneath the circuit of the sun?

Perish such thought! These dark imaginings are nothing but rank pessimism, and pessimism is fatal to us of all men. Of all men the medical man must be an optimist. If our work is to save and prolong life, we must believe that life is something worth having and worth keeping, or we are not true to ourselves, and are false to other men.

Now, what is the value of life? Character. And what makes life worth having and worth keeping?

The more we reflect upon human life in all its manifestations, the more we do become convinced that its true criterion is character. To the unthinking it may seem that this subject is outside our province, and that health and character are in different categories. But we cannot dissociate the physical from the intellectual and moral elements of our nature. As anatomists we may study the physical framework of man, but as practitioners of medicine we must consider the living man as a body, soul and spirit.

Our nature is threefold, and health and character pertain to each component, the Physical, the Intellectual and the Moral. We may admit that so far as we can see, perfect physical health may exist with feeble intelligence and degenerate morals, but the ideal condition for which we should aim is the balanced blend and perfect equilibrium of all these elements. And even though at first glance it may seem that one component may attain perfection, while the others are defective, a close observation convinces us that it is not so. The brilliant intellect is hampered in its working by the diseased body which forms its transient tabernacle; the "eye sublime," subdued to that it works in by a vile spirit, loses its brightness, and

> "Faults in the life breed errors in the brain,
> And these reciprocally those again."

And as Maudsley put it the other day at the British Medical Association, "Mind works in every function of the body; a sound body is the foundation of a sound mind and the lunatic is lunatic to his finger ends." We cannot think soundly about life if we ignore this essential and indissoluble trinity. Experience tells us that in our work of detecting, preventing, eliminating disease, we cannot treat our patient to advantage if we regard only his physical condition and neglect consideration of his mental equipment and moral proclivities. Indeed, the manner of man our patient is is determined more by those invisible forces than by his corporeal form, or as we have it in the sayings of the Wise Man, "As he *thinketh* in his *heart* so *is* he."

And it is with the community as with the individual: that which makes a nation great is not the wealth of its people, or their intelligence, but their good name. It is because I believe that the medical profession may have a large influence in moulding the spirit of a nation, that I wish in the hour which custom allots to me here, to offer a few remarks on National Character and Public Health.

How may our national character help or hinder us in our work, and how may we, as the guardians of the public health, help to make or mar our national character?

The public health laws of a country will depend largely on the character of the people. The character of the people will be conditioned largely by their public health, that is, by that standard of health of the individuals composing the nation which, as a national ideal, all the people are interested in and willing to make sacrifices for. This is Public Health in the largest view.

And first let us consider some of the features of national character which may influence public health.

There is *love of liberty*, and a free people is usually a vigorous and healthy people.

But there is a liberty not according to knowledge. When an individual claims the right to act according to his own judgment in matters of which he is profoundly incapable of judging, his boasted liberty may prove a perilous possession to himself and his neighbors. When a community refuses to be bound by laws which Sanitary Science has declared to be necessary, it abuses its liberty and may bring serious damage upon itself. The laws of health cannot be broken with impunity, and this spurious love of liberty frequently stands in the way of sanitary reform.

We have a striking instance of it at present in the stupid rebellion against sanitary laws shown by many communities on the lower Mississippi in the present epidemic of yellow fever.

From the thought of liberty to that of bondage may seem a

strange step, yet the next national characteristic which I mention as having an influence on public health, namely, the worship of material things and the feverish haste to accumulate wealth, lays upon us a bitter and grievous bondage. The public and the representatives of the public are too apt to regard with impatience, if not with scorn, the claims of any interest which does not seem to have immediate or direct bearing on the great national occupation of money making.

There is an epigrammatic expression in the works of Aristotle which might well be inscribed in letters of gold over the council chamber of our legislatures and our boards of trade. It may be freely translated thus, "It is not seemly for a free people to be always seeking for cash returns."

I think the Greek philosopher saw the glitter of the golden manacles and would warn us, if we value freedom, to set our affections on other things than gold.

This national characteristic, disinclination to invest in medical securities, is, perhaps, due to various things. It is partly due to ignorance, to an incapacity of appreciating scientific teaching, to a hesitation in trusting the expert opinion of Science—for which, perhaps, Science herself is somewhat to blame. It is not entirely the fault of avarice. When our people are convinced that any measure is for the public weal, they are generally willing to aid. And I may perhaps draw attention here to the fact that the first public sanitarium for tuberculosis, the first in Canada erected as a Government work, is now in operation in Kentville in this Province.

But, as a rule, there is great difficulty in inducing corporations and municipalities to expend a reasonable sum in carrying out the details of a public health system—to pay the water supply, drainage, sewerage, removal of garbage, disinfection. It is not too much to say that apathy in regard to questions of public health is a national characteristic.

Like the Sybil with her precious scrolls, Hygeia comes to Demos, and Demos will not buy.

And the yearly tale of death and disease preventable by sanitary measures, increases, and perhaps the only effectual clarion to rouse the indifferent will be—as it has been before in the world's history—a pestilence.

Possibly if the public could see the mere financial loss incurred by preventable disease, the loss of time, the inefficiency of workers, the increased rates to maintain the families who have lost the bread-winner, they would be willing to give more to the Health Department.

There is a feature of our public life which I think may fairly be described as a national characteristic, and that is our tolerance

if not encouragement of quackery. I mention it here because I wish to point out the great injustice of this to our profession.

The youth who aspires to the practice of medicine is required by the laws of his country to undergo a certain course of study, tedious and expensive. He has to pass certain examinations and give proof of familiarity with the requirements of his profession. He has to satisfy the authorities as to the integrity of his moral character before he is allowed to begin practice. And now see him, embarking on the practice of his profession. From his window he sees the apothecary's shop, and knows that for one patient who has gone there to have a prescription filled, a dozen go to buy some proprietary medicine. He buys the morning paper and finds one-tenth to one-fifth of the space for which he pays taken up with advertisements of nostrums, often with testimonials signed by otherwise intelligent and moral people. He dines at his club and he hears nothing but the wonderful cures wrought by some itinerant quack who has never fulfilled one requirement of the Medical Act. Truly Demos loves the quack and seems to have a special spite at him who would practise his profession scientifically in accordance with the noble spirit of the Hippocratic oath.

There are, indeed, many ways in which the traits of national character may influence the health of the people.

In the Report of the Royal Commission on Physical Deterioration, no evidence seems to me more interesting than that of Mrs. Close. This lady, who has given her life to the study of the domestic conditions among the laboring classes of almost every country in Europe, has no doubt of a deterioration in the physique of the laboring classes in England. And the explanation of this she finds in a diminished sense of duty, a debased ideal of the duties of wife and mother. Love of amusement and the attractions of the theatre interfere with the old-fashioned domestic economy. Houses are untidy. Food is badly cooked. Early rising is a vanished virtue. The children are hurried off to school without proper breakfast, and the husband finds in the public house the comfort he is denied at home. The picture is too true and its replica may be found in every town in Canada.

And now, how may we, in the exercise of our daily calling, contribute to the development and growth of national character?

In the first place, we should accustom ourselves to remember that the body with which we deal is of value only as the tenant and instrument of an indwelling spirit, and that the health of the body is our care simply because its ill-health may hamper the action of the intellectual and moral energy within it.

When we prescribe diet and exercise, let us remember that the

luxury and excess and love of ease, which are the most potent factors in disease, injure mind and soul as well as body. Let us press the claims of temperance—that true temperance which walks the golden midway, and turns neither to asceticism nor to indulgence.

In the love of Canadian youth for manly exercise we have a most powerful lever for raising the standard of health and morals.

If we are consulted as to occupation, let us sing the praise of the simple life. Civilization is becoming terribly complex, and it seems on all hands to fungate into luxury. And history points a warning finger to the past. When culture joined hands with luxury decadence was already at the door.

This is an age of sedentary occupations, and a large proportion of the ills which we are called to treat owe their origin to the exigencies of the sedentary life. It is not a natural life for man.

Will it be thought very much out of place if I say, let us honor the farmer. His is the only natural, the original, and the essential work. There is a moral in the fable of Hercules and Antæus. It was not until Hercules had lifted the giant bodily from the ground and so broke the magic contact that he was overcome, and the prescription for many of the ills of the body and of society to-day is in the cry, "Back to the land!"

I have spoken of occupation as bearing on health and character. There is one other fact in our social life to consider, and that is our amusements. Indeed, among some people this question seems to take precedence of work. Amusement and relaxation are necessary, but to give them so prominent a place in our life as they appear to occupy to-day is a menace to the health of the body which they are meant to secure, to the intellectual powers and to moral character.

Pleasure takes precedence of duty, and complaisant sophistry may even justify this order. To scorn delights and live laborious days is now considered folly. We amble along the primrose path of dalliance and avoid the "asperous way that leadeth to the house of sanity."

It is a delight and a hopeful omen to see an interest taken in athletics, and to know that our country takes such an honorable place in all manly exercises. But for one young man whom you will find on the football field, or plying oar or paddle, you will find many who simply waste their time, their only interest in athletics being the spectacular interest of a match or the dubious financial result of a bet. If we could only influence these young men to take a more heroic, a more manly view of life, we should be doing them and our country a service.

Even in our sports there is room for some earnestness, and it

might be well if we took our pleasures, as Froissart says our ancestors did, seriously, and sympathised with the spirit of the old English ballad of Ulysses and the Syren:

" To spend the time luxuriously
Becomes not men of worth.
....

" .....suppose there were
Nor honor, nor report,
Yet manliness would scorn to weare
The time in idle sport:
For toyle doth give a better touch
To make us feel our joy:
And ease finds tediousness, as much
As labour yeelds annoy.

.....

" But natures of the noblest frame
These toyles and dangers please:
And they take comfort in the same,
As much as you in ease:
And with the thought of actions past
Are recreated still,
When pleasure leaves a touch at last,
To shew that it was ill."

This was the "great spirit of high desire" of the Elizabethan days.

But in addition to what we do effect in this way in our own generation, we and our ancestors wield a great power in the laws of heredity.

The observation of centuries and the universal experience of every-day life, no less than the laborious and well-planned experiments of science, tell us that the organism of to-day is the resultant of forces acting in the past, and the diversity of operation of these forces is what gives Nature her infinite variety. To us who see every day the working of the inevitable law, which visits the sins of the fathers upon the children and to whom the phenomena of reversion and atavism and variation are constantly present, to us heredity is one of the great powers of Nature. And we believe that by a careful application of scientific principles to the environment, education and occupation of our race, we may and can exercise a beneficial determinant action on generations yet to be, eliminating disease, stimulating and clarifying mental processes, strengthening and purifying moral qualities.

But, enormous and far-reaching as we believe the power to be of the laws of heredity, we must not allow them to dominate us. They are not the forces of a blind, inexorable Fate. These laws are well ordered in all things. When, in view of the de-

pressing influences of the researches of Lombroso and his school, we feel that we are all smitten, when each scans anxiously his brother's face for stigmata, or fancies himself the bearer of a hall-mark of some degeneration, let us remember that not only can we, to some extent at least, control the working of the laws of heredity, but so far as we ourselves are concerned, can bid them defiance.

We may, if we will, say, "Evil, be thou my good," and turn our backs upon our good angel who points us to an honorable ancestry and bids us follow in their path. But, when the Angel of the Pit, with mocking leer, that "Man of Hell who calls himself Despayre," bids us throw up our hands, tells us we are the captives of circumstance bound in millennial chains, tempts us to give up the hopeless struggle, we may, if we will, say, "Stand thou on that side, for on this am I." We must not forget that divine part of us, that mysterious, undefinable, undeniable power for good or evil—the human will.

Thirty years ago a young man lay in the Royal Infirmary in Edinburgh. Fortune had not smiled upon him and now, maimed and crippled for life, that life seemed "Doomed to dumb forgetfulness a prey." But not to despair. The "Star of the unconquered will" rose and stood over the lonely bed of William Ernest Henley, and inspired these lines, the finest assertion of the Free Will I have ever seen:

"Out of the night that covers me,
Black as the pit from pole to pole,
I thank whatever gods may be
For my unconquerable soul.

"In the fell clutch of circumstance
I have not winced nor cried aloud.
Under the bludgeonings of chance
My head is bloody, but unbowed.

"Beyond this place of wrath and tears
Looms but the Horror of the shade,
And yet the menace of the years
Finds, and shall find me, unafraid.

"It matters not how strait the gate,
How charged with punishments the scroll,
I am the master of my fate:
I am the captain of my soul."

"Sir," said Dr. Samuel Johnson, "the man who has vigor may walk to the East, as well as to the West, if he happen to turn his head that way."

Heredity may condemn us to a life of struggle with bodily weakness and mental incapacity, to "Defects of doubt and taints of blood." It cannot chain the free spirit, and he who can say, "I will, I will not," is still a man.

We, the members of this Association, as practitioners of the

Healing Art, are the heirs of a great past. The Masters of Medicine have passed from our world, but their influence survives—their spirits still live.

Nothing is plainer in the study of the lives of the greatest of our predecessors than the influence of great ideals. From the days of the grand pagan whom we call the Father of Medicine, and whose recognition of the power of spiritual forces is so clearly seen in the oath which he laid upon his successors, to the great authorities of to-day, we can trace the power of faith in the Unseen Universe.

Let me quote from the illustrious Pasteur: "Happy he who carries with him a God—an ideal of beauty, and who obeys him. An ideal of Art, an ideal of Science, an ideal of Patriotism, an ideal of the virtues of the Gospel."

And if we are to have strength for our work, courage and hope to cheer us in our long contest with all these shapes of foul disease, we must bear in mind the supreme importance of high ideals—of life—and of man.

"You touch God," said Novalis, "when you lay your hand upon a human body." The spark of life we tend is a part of the divine, and immortal.

> "The soul that rises with us, our life's star,
> Hath had elsewhere its setting,
> And cometh from afar."

We deal not with Dust and To-day, but with Life and Forever. And when we realize this, our own nature becomes ennobled that it works in and can rise to still greater power.

We who deal perforce so largely with the material and perishable, if we would keep sight of the indestructible and immortal, should cultivate a power of detachment, should rise through the cloudy region of the world, and accustom ourselves to the free air and larger atmosphere of a universe.

As the Healer of the world came from beyond its confines, so we who would help in the healing should be able to rise into the ether, where we can have a proper perspective of Time. We should visit the ethereal region where, with Amiel, we may "Listen to the music of time and the hosannas of the world," or with our own Wordsworth hear "Oftentimes the still, sad music of humanity," and be conscious of

> "A presence that disturbs us with the joy
> Of elevated thoughts: a sense sublime
> Of something far more deeply interfused,
> Whose dwelling is the light of setting suns,
> And the round ocean and the living air,
> And the blue sky, and in the mind of man."

And how may we best acquire this power but by the study of our subject—the philosophic study of man?

What our profession requires to-day, even more than an increase in scientific knowledge, is more of the study which gave character to the great masters of the past, and a realization of the grandeur of the divine possibilities in man. True, we see much of the lower nature, weakness and suffering and sin, but we also see in every soul the capacity of Honor, Courage and Love. Let us rather look on these. "Whatsoever things are true, . . . whatsoever things are pure, . . . whatsoever things are lovely, . . . if there be any virtue, . . . let us think on these things."

PRESIDENTIAL ADDRESS ON MEDICAL EDUCATION—PAST, PRESENT AND FUTURE.*

BY GEORGE COOPER FRANKLIN, F.R.C.S ENG.
Honorary Surgeon to the Leicester Infirmary.

After the usual words of welcome to the Association, and having expressed his thanks for the honor which had been accorded to him in his election as President, Mr. Franklin proceeded to give a shore *résumé* of the history of Leicester. After mentioning the names of Goulston, the founder of the Goulstonian lectures; Cheselden, the famous surgeon to St. Thomas's Hospital; Halford, for twenty-four years President of the Royal College of Physicians of London; Benjamin Ward Richardson; and Tom Paget, of the Leicester Infirmary, the first provincial surgeon to obtain a seat on the Council of the Royal College of Surgeons of England, all of whom were Leicestershire men, the President passed to the main subject of his address. He said:

I now propose, ladies and gentlemen, having referred to local matters in connection with the medical profession of, I hope, some interest, to venture on some remarks with regard to the existing regulations by the State of the education of those who desire to become members of our profession. In doing so, in considering how the education is regulated to-day, I must as a necessary preliminary, consider, to some extent, the regulations of the past, and then we can ask if the improvements of to-day are as great as they should be, if the regulations are producing the best possible results; if, in fact, the average student, when he or she leaves the medical school or hospital legally qualified, is as well equipped as possible for the responsibilities of the future. That this is a tremendous problem we recognize at once, when we consider for one moment what it means to a country, or rather to a series of countless communities, to have among them thoroughly well educated representatives of the medical profession. As it is absolutely impossible to suppose that a civilized community could exist without such representatives, it follows, surely, that those communities in which are found the most highly educated members of the medical profession have an enormous advantage as compared with others. It seems to me that the importance of the education of the medical man or woman of to-day is greater than ever it was, and the responsi-

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bilities of those who are engaged in teaching are also greater than ever.

The Apothecaries Act.

Now, as far back as 1722 there was an Act which empowered the Apothecaries' Company to visit the shops of all apothecaries practising in London and to destroy such drugs as they found unfit for use. In 1748 great additional powers were given to the Company by an Act authorizing them to appoint a board of ten examiners, without whose license no persons should be allowed to dispense medicines in London or within a circuit of seven miles round it. The celebrated Apothecaries Act of 1815 appears to have been the first Act to legalize medical practice and penalize unqualified practice, and this was really the start in this country of any regulations recognized by the State with regard to the education of apothecaries, the then general practitioners. The General Medical Council did not come into existence until 1858, the date of the first Medical Act. Between 1815 and 1858 there seems to have been a sort of "hiatus," but two important events helped towards the first Medical Act, viz., the establishment of *The Lancet*, in 1823, and the founding of our Association, in 1832, by Sir Charles Hastings, of Worcester, under the name of "The Provincial Medical and Surgical Association."

It will be interesting to refer to two or three clauses of the Act of 1815 before we proceed further, to Clause III., for example. The Masters and Wardens were empowered to enter shops of apothecaries and to examine drugs: "They shall or may search, survey, prove, and determine, if the medicines, simple, or compound, wares, drugs, etc., and any thing or things whatsoever therein contained and belonging to the art or mystery of apothecaries aforesaid, be wholesome, meet, and fit for the fare, health, and ease of His Majesty's subjects." Again, in Clause VII., we read: "Whereas much mischief and inconvenience has arisen, from great numbers of persons in many parts of England and Wales exercising the functions of an apothecary, who are wholly ignorant and utterly incompetent to the exercise of such functions whereby the health and lives of the community are greatly endangered, and it is become necessary that provision should be made for remedying such evils, be it, therefore, further enacted that the said Master, Wardens, and Society of the Art and Mystery of Apothecaries of the City of London shall be empowered for ever to superintend the provisions of this Act and carry the several regulations and provisions thereof in relation to the several persons practising the art or mystery or profession of an apothecary throughout England and Wales into full execution."

Then follow clauses to appoint examiners and to appoint a chairman, all to hold office for one year, but to be eligible for re-election. Clause XIV., "To prevent any person or persons from practising as an apothecary without being properly qualified to practise as such," enacts that they should be examined by the court of examiners and receive certificates, provided always that no person shall be admitted to such examination until he shall have attained the full age of twenty-one years, and in Clause XV. it is enacted that such person must have served a five years' apprenticeship. Clause XX. provides for a penalty for practising without a certificate.

The Medical Act of 1858.

Coming now to the first Medical Act of 1858, we find it established a Council to be styled "The General Council of Medical Education and Registration of the United Kingdom, with branch councils for England, Scotland, and Ireland, consisting of representatives from the universities and corporations." The chief achievements of the Council have been the establishment of a preliminary examination and inducing the corporations to leave it to the national educational bodies, the visitations of examinations, and the publication of the Medical Register and of the Pharmacopœia. It has had some faults, of course; the chief has been its want of sympathy with the great body of the profession, especially with regard to the representation of the profession in the Council.

A great defect of the Act of 1858 was that it permitted the separate registration of purely medical and purely surgical diplomas, and therefore, diplomas which did not guarantee an adequate acquaintance with all the subjects of professional examination were used by their holders to cover the whole ground of medical, surgical, and obstetric practice. In May, 1869, Mr. (afterwards Sir) John Simon said that persons practising on half qualifications were to be counted by thousands in the United Kingdom. Between 1858 and 1885, nearly twenty Bills were introduced to remedy these main defects. In 1870 Lord Ripon's Bill was brought in to establish a simple code of regulations common to all the examining boards of the United Kingdom, sufficient and uniform tests of qualification as a condition of entry upon the Medical Register, a more or less consolidated examining authority, and more effectual provisions to restrain quacks. The principle was accepted by the Council, but the Bill was wrecked by the opposition of the British Medical Association on the ground that no provision was made for the representation of the profession in the Council. The Government Bill of 1878 was a great improvement; among other things,

it required that all persons desiring to be placed on the Medical Register should have both a medical and surgical qualification, and it contained provisions for amending the 40th Clause—"Suppression of Unqualified Quacks"—and for the admission of women to examination. It also provided for the examination of, and registration of, dentists and midwives and amended the law relating to certificates of lunacy.

The Medical Act of 1886.

The celebrated Act of 1886 removed two conspicuous blots in the organization of our profession. It made it necessary for every medical man to be qualified completely—that is, in the three main branches of practice—medicine, surgery, and obstetrics—before he can be placed on the Medical Register, and it has conferred representation on the great body of the profession.

Medical Education in London Forty Years Ago.

In the "sixties" London students were gradually waking up to the fact that, although the College and Hall gave them the two qualifications which entitled them to be placed on the Medical Register, the diplomas did not give them the legal right to assume the title of "Doctor." Many men—hard-working and possibly ambitious—when coming up from the country to the hospital heard of the University of London for the first time. Anyway, the University of London gave a degree, and why should they not go in for it? To show you how ill-adapted the teaching was in those days in the London medical schools for those students who desired to graduate in London, I will quote from a letter addressed in December, 1879, to the Chancellor of the University by a distinguished graduate, my old friend and teacher, Dr. J. S. Bristowe:

"Only a small minority of the students entering the medical profession in England offer themselves as candidates at the matriculation examination. Nearly 50 per cent. fail; of those 50 per cent. fail at the preliminary scientific examination. Of those who have passed this examination, 35 per cent. fail at the first M.B., and of those who finally become candidates for the M.B. degree, 19 per cent. are rejected. The collective result is that not 10 per cent. of the young men who enter at the lowest series of the examinations emerge successful at the last, and that at least 72 per cent. are rejected at the matriculation and preliminary scientific examinations."

Dr. Bristowe observes that at that time there were 534 men living who held a medical degree in the University of London out of a total of nearly 25,000 practitioners holding British qualifications. The practical result of this is well known; scores

of men left the London hospitals before their time was completed to obtain degrees in Scotland, Ireland, or elsewhere. In short, the system of education forty years ago in the London medical schools, as far as there was any system, was designed to enable men to qualify at the College and Hall, or at the two Colleges, as soon as possible—this could then be done in four years, or just under—and not to encourage work for the University of London degree.

Of course, I am well aware that some very good work was done, more especially in medicine and surgery; but in obstetrics and gynecology the practice and instruction were alike insufficient. It must be remembered, when referring to the medical education of forty years ago, that those were the days of the linseed-meal poultice (in the surgical wards), antiseptics were just beginning to be used, the clinical thermometer appeared on the scene, together with the laryngoscope and the ophthalmoscope. The clinical teaching was then, I suppose, nothing like so systematic as it is now, but some of the lecturing was most excellent. I might refer to the lecturing of the late Sir John Simon, then Mr. Simon, on pathology at my old school of St. Thomas's. He used to lecture to, perhaps, hardly a score of students. It would have been of immense advantage if he could have lectured to every medical student in London. A man of his learning and intellect was, in a way, almost wasted down in the old Surrey Gardens, but there was no attempt at concentration of professional studies in those days. If I were asked, In what respect do you think the medical education of forty years ago was most deficient? I should, without hesitation, say it was deficient in three particulars: (1) preliminary examinations; (2) obstetric medicine; and (3) the administration of anesthetics; and if I were asked to-day the same question, I should give precisely the same answer.

Medical Education of To-day.

Now I have referred to the regulations of the past, I will briefly consider those of to-day and note the improvements that have been effected. I may then, perhaps, venture to forecast what further advances may be made, not only in the interest of the medical student, but also to the advantage of the whole community. By the regulations of the General Medical Council no person can be registered as a medical or dental student who has not attained the age of sixteen years; some, a great many, think the age ought to be seventeen years. I am one of those. Further, no person can be allowed to register unless he or she shall have previously passed a recognized preliminary examination in the subjects of general education. The period of professional study between the date of registration as a medical student and the

date of the final examination for any diploma which entitles its holder to be registered under the Medical Act must be a period of *bona fide* study during not less than five years. Now this period of five years is a minimum time, and it obtains whether the curriculum be passed in England, Scotland, or Ireland, and whether the student is going in for a university degree or a college diploma; as a rule, of course the university man takes a longer time. The universities and medical corporations seem now to work on the same lines, though differing in the severity of examinational tests—lines laid down by the General Medical Council. For instance, the curriculum and examination of the Conjoint Board have now been brought much more into line with those of the University of London and other universities than was formerly the case. This, of course, is so much to the good.

Now I will suppose a young friend (to start well, we will hope he has passed the matriculation examination of the University of London) has registered at the age of sixteen or seventeen years. What has he to do by the time he is twenty-one or twenty-two years of age? He has a journey of three stages: (1) elementary science, including chemistry, physics, elementary biology, and practical pharmacy; (2) anatomy and physiology; and (3) medicine, surgery, and obstetrics. If he passes his first two examinations all right, he has two and a half to three years left for the study of the more purely medical subjects, and it is perfectly appalling to think of the lectures and other work which the student must attend during the last period of two and a half or three years. I am persuaded that the laity has not the remotest idea of the number of subjects that the medical student has to tackle. Speaking generally, he has to attend lectures in medicine six months, surgery six months, obstetrics three months, pathology, bacteriology, pharmacology, and therapeutics three months, forensic medicine, public health, together with systematic practical instruction in medicine, obstetrics, and surgery; operations on the dead body, attendance on the practice of a recognized hospital for two winter and two summer sessions, post-mortem demonstrations for twelve months and clinical lectures on medicine and surgery. He must also attend clinical instructions in ophthalmic surgery, insanity, and diseases of women, and must act as clinical clerk and surgical dresser for not less than six months each and attend twenty obstetric cases. Instruction in vaccination and in the administration of anesthetics and attendance at a fever hospital are also required.

I have said that the laity has no idea of the amount or of the variety of subjects to be studied. Another point that cannot be grasped or understood is why, when our young friend has passed

his three examinations, has done all his work, and has obtained his diploma from the Conjoint Board, he has not earned the legal title of "Doctor." I do not propose to discuss this question now. I only remark, in passing, that it seems to me that the British public will decide it—in fact, are deciding it now, for as a matter of convenience, if for nothing else, the title of "Doctor" is given to the medical practitioner nowadays much more generally than formerly, in fact, almost universally. Even in our journal I notice that the "Conjoint man" is styled "Doctor." I think, then, it will be obvious to everyone that great improvements have been made within the last two decades particularly, and that the general standard of medical education has risen considerably, notwithstanding the fact that too much of the average student's time is spent on biological and chemical studies, and that too little time is given to ward work. I have ventured to point out what I consider to have been the main deficiencies of the past. I mentioned that in three particulars I thought the medical education was deficient, namely: (1) preliminary examination; (2) obstetric medicine; and (3) the administration of anesthetics; and now, notwithstanding the great general advance all along the line, there is a pressing necessity for much improvement in these three respects.

1. *Preliminary Education.*—At the root of all progress lies the improvement in the general and professional culture of those about to enter the medical profession. Can anyone deny that some of the preliminary examinations of to-day are too easy? They are not sufficiently stringent to secure a proper standard of culture. I do not think that any student should be put on the Medical Register unless he has passed the matriculation examination of the University of London, or one of equal stringency. In the good time coming, when all medical students will be undergraduates of a university, and will be obliged to take a degree in arts, this question of preliminary examinations will be solved; until then we must do the best we can. I think the advantages of a good classical education early, to a man entering our profession, cannot be overrated. Nothing will, or can, make up for it; there would not be so many candidates deficient in ordinary spelling and composition if there had been a good classical education. To my mind there is nothing really superior to the old-fashioned Latin and Greek training, but it seems hopeless to insist nowadays upon the retention of Greek. I think it is twenty-five or thirty years ago since, in the matriculation examination of the University of London, students were allowed to take up German instead of Greek. I venture to think that, as far as medical students are concerned, that was a retrograde step. I do not envy the student sitting down to learn his

anatomy who has not learnt even a little Latin and Greek; his Gray's Anatomy, perchance, in front of him, his Latin dictionary on one side, and his Greek lexicon on the other. The student, too, must not begin to specialize too soon; he wants a liberal education, an education for its own sake. This goes when the technical education begins, that is, when he leaves school or college to learn to be a "doctor." I was most interested to observe that about two months ago the Lord Chancellor, as warden of the Guild of Undergraduates of the University of Birmingham, when delivering his address, said he thought there was a grievous omission in that University—there was no chair of Greek—and he hoped they would clamor for such a chair and that Birmingham munificence would be effectual in procuring it.

2. *Obstetric Medicine.*—With regard to the education in obstetric medicine and surgery, I would insist that its importance is not appreciated as it should be. This is a subject of which a very practical view should be taken. It is supposed that out of ten newly qualified medical men who leave hospital some seven or eight of them go into what is called, for want of a better name, "general practice"—become general practitioners. Now, what is the basis of general practice? Anyway, in a practitioner's early years it is obstetrics. The young practitioner who has his living to get is not long in finding this out, and in finding out, too, that when he has to rely on his own knowledge and judgment he does not feel himself so well equipped as he thought he was. The remedy for this is obvious—much more practical work before leaving hospital. It is trifling with the subject for it to be deemed sufficient that a man should have attended not less than twenty obstetric cases in order to be signed up.

3. *Anesthetics.*—I have a word to say about anesthetics. The administration of an anesthetic is a duty which may devolve on any practitioner at any moment almost. He should, therefore, feel himself quite capable to undertake this duty. I believe that good instruction is given at the medical schools in this subject at the present day. Anyway, there is a vast improvement in this respect as compared with what obtained in my student days. Then, indeed, unless a man was sufficiently fortunate to obtain his house surgeoncy he had no opportunity for any practical experience with regard to the administration of anesthetics. For many years I have had unusual opportunities of observing the capacities of men, freshly qualified, who have come from various schools all over the country to fill the resident appointment at our infirmary and whose duties have included the administration of anesthetics. There can be no doubt that in recent years men have been better up to this particular work. All the same I think that at the average hospital medical school the im-

portance of a thoroughly good education in this department is not sufficiently insisted upon.

Medical Education in the Future.

Now that I have had my grumble at what I have ventured to call "deficiencies" in the medical education both of the past and of the present day, I feel myself at liberty to say that though the average young medical practitioner in this country is a better educated man than he ever was, there is still room for improvement. But difficulties arise at once. If there be more subjects to be studied or subjects to be more thoroughly studied, how in the world is the time to be found? I have alluded to the tremendous amount of work the student has to get through, particularly in his last three years; is it right that it should be so, and is it possible that he can leave out some of the prescribed work and give more time to other subjects so as to learn them more thoroughly? The histology of to-day, together with physiology, so elaborated that its study must take up a much larger proportion of time than formerly, are subjects necessary enough, but are they not being pushed too far? The future practitioner is not expected to be a professor of physiology any more than every student can be a scientific physiologist. Just so with regard to bacteriology, which has become so much of a science that it might well in itself constitute a study for a lifetime. It must be studied, but its teaching, like that of histology and physiology, should be adapted more precisely to the actual needs of the practical physician or surgeon of to-morrow.

Perhaps the most startling fact of to-day in connection with medical education is the apparently inevitable development of the specialist. The Medical Act of 1886, to which I have already alluded, provided that no one should be admitted to the Medical Register who has not been examined and is not qualified in medicine, surgery, and obstetrics. The so-called general practitioner is one who practises these three; many add pharmacy, and thus practise as apothecaries. Whatever line a man takes eventually he must have qualified as a general practitioner. One might be inclined to ask whether the general practitioner will, as such, continue to exist when one contemplates for a moment the subdivisions of work that are undertaken by the specialist. Thus we have not only special men for the eye, ear, spine, skin, throat, and so on, but for almost every organ in the body. How has this condition of things arisen? I think I can assign two main reasons: (1) The severe competition which awaits a well-qualified man when he is about to start in practice; and (2), though perhaps this ought to come first, the demand of the public. The public do not believe in universalism as applied to the practice

of medicine, but they pin their faith to some specialist who has taken up some particular ailment or organ of the body. An old fellow-student of mine, now holding a high position as a consulting physician in London, told me that a lady of distinction brought her child for him to see because she had been given to understand that he was a specialist for children between the ages of seven and eight years, and her child was just seven and a half years old! Seriously speaking, this condition of things has to be recognized; it has come to stay, whether for the greatest good of the greatest number, is more than I can say; I can only hope so.

Of course, we all agree that some special departments in our profession are absolutely necessary; take, for example, that of public health. Now the supreme authority in sanitary matters in this country is the Local Government Board, with its chief medical officer and its medical and other inspectors; and all urban and rural sanitary authorities are required to appoint medical officers of health having registered qualifications in medicine and surgery. The duties of a medical officer of health are tremendous (in an average town, such as Leicester, for example), and require a most extensive and liberal education. The man who would aspire to so honorable a post must specialize early in his professional life. Think what he has to do. The Local Government Board directs that he shall inform himself respecting all influences affecting, or threatening to affect, injuriously the public health within the district. He shall be prepared to advise the sanitary authority, worthy aldermen and common councillors alike, on all matters affecting the health of the district. He shall direct and superintend the work of the sanitary inspectors. He has to be able to give a decided opinion as to whether some articles (meat, game, fish, and the like) when exposed for sale are fit or unfit for food. He has to write numberless reports on all sorts of subjects and to report every quarter to the Local Government Board, and oftener if there should be any epidemic. He has to prepare an annual report up to the end of each December, containing tabular statements without end with regard to sickness and death-rate. In matters not especially provided for, the medical officer of health must obey the instructions of the Local Government Board, and the lawful orders or directions of the sanitary authority. Since I have been in practice it has become necessary to notify to the sanitary authority all cases of contagious diseases, and the medical officer of health is expected to be able to decide immediately in doubtful cases of infective disease; for example, he must decide at once whether a case be one of modified smallpox or of severe chicken-pox. He has, in fact, to constitute himself a "final court of appeal." It

is now suggested that his duties should be added to in connection with the supervision of midwives under the new Act.

Now, surely the education of a man who is to carry out these duties thoroughly well must have been very special, in fact, directed towards public health *ab initio*. Although it has nothing to do with my argument, I may here express my firm opinion that our Association will be doing a great work if it will use its influence to favor the principle or policy of "fixity of tenure" as applied to competent and well-educated medical officers of health. The present conditions of service are not satisfactory, to say the least.

As another instance of special work in our profession, work requiring special aptitude and education, I would refer to the insane. In these large asylums which unfortunately seem to have sprung up, and are springing up, all over the country, and which are harbors of refuge for the most afflicted and the most to be pitied of our fellow-creatures are to be found men of our calling who have devoted, men who are devoting, their lives to the improvement of the treatment and surroundings of those unfortunate people intrusted to their care. Within the last half century the treatment of the insane has been revolutionized, improved in every possible way. This has been due to the specialists, to men who have made the care and treatment of those of unsound mind their special study. And so I might go on; it really seems as if the medical profession is soon to consist of a series of professions, and that those who enter it, if they intend to make a decent living, will have, quite early in professional life, to decide each one on his particular line. Of course this is not really so.

The two illustrations I have given of specialism in public health and lunacy are illustrations of legitimate specialism, but that there is a type of specialism existing with which we are not all in accord, no one will deny. A healthy specialism has been defined as "a practice of a special branch of treatment, a study of a special domain of knowledge of a natural and gradual growth in the varied experience of a practitioner." Something like this has always existed in medicine, greatly to its advantage, and is very different from the specialism of what I have heard described as the mushroom growth variety, where chicanery and humbug reign triumphant. There can be no doubt that honest specialism has advanced the science and art of both medicine and surgery, particularly during the last thirty or forty years. But, as has often been observed in many other lines of human activity, all sub-division of labor, while advancing the best interests and development of the people at large, has great disadvantages for those engaged in the work. This is seen constantly in many industrial pursuits, when mechanics or work-

men become almost like machines, devoting their constant toil and energy to one small section or sub-division of work, and are relatively useless in regard to other portions of the same industry. There is, then, the danger that this modern development of specialism may tend to produce a narrower type of medical men who, like the mechanics, will only know their own department and work, and be unable to understand properly the relations of special portions of the field of medicine to others or to the system at large. Whether this may be so or not, the main point to keep in view, while always admitting that specialism is with us, is "whether or not the practical result is good?"—first, as affecting the public, and, secondly, as affecting the profession. To both of these questions I unhesitatingly say, Yes, and from my experience of practice and patients I make bold to declare that the public might derive more help and benefit than they do if they knew what to have and what to avoid in the way of specialism. Now, here is the opportunity and a well-defined duty for the well-educated practitioner. He will see to it that his patient shall not become (if he can help it) a patronizer of the false specialist (legally qualified or not). After all, it seems to be a matter of trust, and just in proportion as you have young men coming thoroughly well trained from the medical schools, so you will have a corresponding amount of confidence on the part of the public. The way in which specialism is affecting the profession has already been alluded to, and I only say again that the chief danger seems to be the development of a narrower type of medical man. I think, before leaving this subject of specialism, that I may take the opportunity to express my regret that nothing seems to be able to be done to check the advertising specialist, enterprising advertisers who claim to cure diseases without seeing the patients (claim to do, in fact, what is impossible of accomplishment), and so use the daily press and religious and magazine publications for fraudulent purposes, for that is what it amounts to. In America, I think, there are greater sinners in this respect than there are here, but in England they are bad enough, and it is a matter of painful surprise that proprietors of high-class newspapers and magazines can allow such rubbish to be shot into their advertising columns. There must have been great defects in education somewhere, or such a condition of things would never be tolerated.

I have intimated that, to the best of my judgment, the average young practitioner of to-day is a better man than he was thirty or forty years ago, but I want him to be better still, to be more thoroughly equipped, and would not the public gain immensely if this were so? The university education is the first pressing necessity. I have alluded to the good time coming when

all medical students shall be undergraduates of a university and shall have to take a degree in arts. I hope it is not a dream, but that another generation will see its accomplishment. It is undoubtedly the fact that medical men of a former generation, whose sons are now entering the profession, send them, if they can possibly afford it, to one or other of the universities; again, when the student's time is over in the five or six years, why should it not be obligatory that he should hold some responsible resident appointment for six or twelve months before going into practice? As a matter of fact, it is more often so than not, but now that there are more opportunities for resident appointments, it would be a wise regulation that every man should have this experience. I have known many men who have regretted in after years that they had no such opportunity. I may perhaps offer one more suggestion to the newly qualified practitioner, and that is, that he should at once join the British Medical Association. The British Medical Association, as I have mentioned, was founded at Worcester in 1832. At its first annual meeting, a year later, it numbered 140 members. Its success has been very marked. I think that there are some 20,000 members, but the success will not be complete until every registered practitioner becomes a member. The British Medical Association exists for the promotion of medical and the allied sciences; it also exists for the maintenance of the honor and the interests of the profession. I will not labor this point now; I may have another opportunity, but I would earnestly invite every newly qualified practitioner to join our Association as a matter of course.

I suppose all of us, when students, indulged more or less in "hero worship." I am sure I did, and I have already mentioned the name of one of my heroes. I mean the late Sir John Simon. He was appointed lecturer on pathology at St. Thomas's Hospital as far back as 1847. He was then thirty-one years old, and on that occasion he gave an inaugural address, and I propose to conclude my remarks to-night, which I sincerely wish had been more worthy of this distinguished audience, by quoting some of his final sentences. Mr. Simon—this genius, surgeon, pathologist, and poet-philosopher—was addressing a very learned audience, not only students. He said:

"But finally, gentlemen, I cannot forget, nor can I refrain from reminding you, that the course I invite you to run is no beaten track of traditional knowledge. The science which we have jointly to study is yet but in its first dawn and immaturity, and the terms of my commission here have imposed on me as an especial duty to institute researches for the purpose of unveiling the latent processes by which disease is established and the curative processes by which it is removed. To co-operate with me in

these researches and go far beyond me in achieving their great results, I earnestly invite and exhort you. I bid you enter on a field of science where industry must have its reward in an unparalleled harvest of discovery—a field now first beginning to bear fruit, with promise of unmeasured fertility. If you have energies in you, beyond the mere care for sustenance, how can you better or more nobly bestow them than in original investigations which have nature for their field and the alleviation of human ill for their final purpose? It is in no transient access of enthusiasm, but in the deepest conviction of my judgment, that I affirm the supreme dignity of such pursuits; that I affirm them not only to be in themselves the loftiest occupation of the human mind, but to include the largest and most enduring rewards. To be the successful interpreter of nature, to discover her hidden laws of operation, or by your personal exertions to augment the permanent resources and utilities of medicine—this implies as its result to be remembered so long as man and outward nature coexist; *to be remembered as the ornaments and benefactors of your species.*"

DR. DANIEL CLARK

who recently resigned the Superintendency of Toronto Asylum for the Insane.
(See page 267, this Issue.)

DR. C. K. CLARKE

lately of Rockwood Asylum for the Insane, recently promoted to be Medical Superintendent, Toronto Asylum for the Insane.
(See page 262, this Issue.)

The Canadian Journal of Medicine and Surgery

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Address all Communications, Correspondence, Books, Matter Regarding Advertising, and make all Cheques, Drafts and Post-office Orders payable to "The Canadian Journal of Medicine and Surgery," 145 College St., Toronto, Canada.

Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., *must be* in our hands by the fifteenth of the month previous to publication.

Advertisements, to insure insertion in the issue of any month, should be sent not later than the tenth of the preceding month. London, Eng. Representative, W. Hamilton Mills, 8 Bouverie Street, E. C. Agents for Germany Saarbach's News Exchange, Mainz, Germany.

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Editorials.

YELLOW FEVER.

THE bacillus icteroides, discovered in 1897 by Professor Sanarelli, of Bologna, is by many observers accepted as the efficient cause of yellow fever. It is described as a slender, motile, facultative, anaerobic bacillus from 2 to 4 c. c. in length.

Its etiological relation to yellow fever is supported: (1) by its frequent presence in the blood and viscera of the dead; (2) by

a serum test, in which the bacilli become agglutinated and motionless, after the manner of typhoid bacilli in the Widal test, and (3) by the production of the disease in man, through inoculation experiments conducted by Sanarelli and others. Yellow fever is not directly contagious, and recent observations prove that it is not carried by fomites. A mosquito, called Stegomyia fasciata, is the only known carrier of the yellow fever poison, which it communicates by inoculation. The female is distinguished by lyre-markings on the back of the thorax, and by the velvety and downy character of the thorax. The blood of a yellow fever patient is infectious for three days only, so that the Stegomyia must bite within the first three days to get the poison, and does not become infectious till twelve days after receiving the poison.

Roger (Introduction à l'étude de la Médecine, 1904) opines that "the bacillus icteroides is not the specific cause of yellow fever. It is, however, an interesting microbe, because of its high pathogenic power." He thinks that the specific agent of the disease is a protozoon, which is inoculated by the Stegomyia fasciata. Leube, in "Special Medical Diagnosis," 1904, supports this opinion, saying: "The exciting cause of yellow fever is probably a protozoon conveyed by the mosquito; this has, however, not been definitely determined as yet."

Recent researches made in veterinary medicine, says Roger, show that the trypanosomes, which are closely related to the malarial parasites discovered by Laveran, provoke in certain animal species real infectious disorders. The Nagana, which in South and West Africa affects horses and cattle, is well known under the name of the tsetse fly disease, conveyed by Glossina morsitans. This fly only transmits a parasite, which was originally discovered by Bruce in 1894. The parasite is the Herpetonomas Brucei, which is also pathogenic to man, and causes the sleeping sickness, a severe disease endemic in Africa, affecting chiefly the native blacks.

Surra, a disease of horses in India, is due to the Herpetonomas Evansi (1891); Mal de Caderas, which attacks horses in South America, is produced by another trypanosome, discovered by Elmassian. The disease, known as Gall-sickness in bovines in the Transvaal, is caused by the trypanosome of Theiler; a disease in rats has been traced to a trypanosome by Mesnil. The trypan-

osomata (Gr. τρυπᾶνον, borer + σωμα, body) cause other diseases. Thus Dourine or Maladie de Coit, caused by Tryp. Equiperdum, a venereal disease of horses, resembling syphilis, prevails in Algiers, and has even been observed in Ontario. It is caused by a trypanosoma discovered by Schneider and Buffard. Then, looking at the question from another point of view, Leblanc has discovered the presence of hematozoa, animal organisms of species that live in the blood cells and blood stream of dogs affected with jaundice.

Vaccinia and variola have also been studied from the same etiological standpoint. V. der Loeff and Pfeiffer have observed in the pus of smallpox pustules, or in vaccine lymph, certain corpuscles, which have been studied by Guarnieri, under the name of Cytoryctes vaccinæ. Funck has given to these bodies the name, sporidium vaccinale. Although many authors consider these elements as only mere cellular debris, recent researches, especially by Roger, Weil, Wassiliewski and Ischigami appear to prove that sporidium variolosum is the specific cause of smallpox, and sporidium vaccinale the specific cause of vaccinia.

Whether the causa morbi of yellow fever shall prove to be a protozoon, such as these, remains to be discovered; but the evidence points that way. Thus Schaudinn suggests (*International Medical Annual,* 1905), that the etiological organism of yellow fever (a protozoon) may be found in the Malpighian tubes, and thinks it may be invisible, unless in an agglomeration of many individuals. He was led to make this suggestion from the remarkable work on the developmental cycle of trypanosomes and spirochetes in the mosquito culex pipiens. Whatever the nature of the parasite of yellow fever may be, its life-cycle would appear, not to need the passage of the parasite through the intermediate host, Stegomyia fasciata, for Reed and his associates succeeded in producing the disease by injection of blood drawn from the general circulation. Practically, however, this disease is always conveyed by the mosquito. It is not conveyed by fomites, and hence disinfection of a house, except as to mosquitoes, is unnecessary.

The spread of the disease can be controlled most effectually by catching the mosquitoes in the houses; by fumigating infected houses with sulphur (one pound of sulphur for each 1,000 cubic feet of space); by using screens to pro-

tect the sick and the dead from mosquitoes, and by burning Pyrethrum (Dalmatian) powder, in the same proportion, which will either kill or stupefy the mosquitoes so that in three hours they may be swept up and burned. By these and other preventive measures the sanitary condition of Havana was improved. The following extract from Public Health Reports, Feb. 14, 1902, p. 363, shows how the work was done and the results: "Under the direction of Dr. W. C. Gorgas, U.S.A., the 'Stegomyia Brigade' began its work of inspection in March, 1901, when in 16,000 houses examined, larvæ were found at the rate of 100 per cent. This does not mean that every house examined had larvæ; many houses were found that had several receptacles which contained larvæ. During December, 1901, 16,121 houses were inspected, and in but 1.5 per cent. were the larvæ found. From May 7 to July 1 (fifty-four days), no case of the disease occurred; then it was introduced from Santiago de las Vegas, and later from other places, and yet, during July, there were but four cases, and in August, but 8. During the whole year (1901), there were but 18 deaths from yellow fever, and 12 of those occurred in January and February, before the work of prevention was begun. During the preceding forty-five years, the average number of deaths therefrom was 751.44, the minimum 51, occurring in 1866."

What has been done in Havana is also being done in New Orleans, and there is every reason to hope that the results will be equally satisfactory. Eternal vigilance is the price of liberty, and it would seem that eternal watchfulness of Stegomyia fasciata is the price of safety in the tropics of America. J. J. C.

EVIL EFFECTS OF CHRONIC TONSILLITIS AND ADENOID VEGETATIONS.

Chronic hypertrophy of the tonsils and the pharyngeal adenoid tissue generally begins about the third or fourth year, but it may be congenital. It is said to follow diphtheria and the exanthems; repeated attacks of tonsillitis may also produce permanent enlargement. There is, of course, no difficulty in recognizing this condition in a well-marked case of the disease, the enlarged tonsils being revealed on examining the throat; the adenoid vegetations

may be seen through the throat mirror or they can be felt with the finger.

The most prominent symptom is mouth-breathing, due, largely, to the presence of the adenoids. The disease develops gradually; the child becomes restless at night and sleeps with the head thrown back and the mouth open. The obstruction in the nose causes loud snoring and, in severe cases, the child awakes in a fright, as though at the point of suffocation. Next the child acquires the habit of keeping the mouth open during the day, and the face becomes dull and expressionless; the voice nasal and indistinct, especially in the pronunciation of the sounds, l, r, m and n. The hearing often becomes affected; nasal mucus is increased and the breath becomes foul. Taste and smell are also affected in some cases. Small, cheesy, foul-smelling masses from the tonsil and crypts are often brought up, by coughing or hawking. Pigeon breast or barrel chest, or funnel chest may result from this condition. Among the more remote results are: Habit chorea of the face, enuresis, dreams, forgetfulness and inaptitude for study.

In an article in the *Brit. Med. Jour.*, Feb. 4th, 1905, on the teaching of hygiene in schools, the writer draws attention to the fact, that activity of the brain produces waste products, which must be continually removed, if premature fatigue is to be avoided. There can be no doubt that this removal is, in part at least, carried out by means of the lymphatics. Large lymphatic vessels pass out of the cranial cavity with the olfactory nerves, and it is highly probable, that structural changes in the nasal mucous membrane, by exerting pressure on these lymph-vessels, will impede the current, lead to the retention of the waste products, and so produce a feeling of fatigue.

All are agreed, that children with adenoids suffer in health and are retarded in their education. The affection is usually accompanied with headache, permanent or intermittent; sometimes it is there regularly in the morning after rising; at other times it appears at school time, as the result of the slightest mental exertion. Dr. Guye says of this feature of these cases: "If it were generally known how many cases of chronic headache, of inability to learn or to perform any mental work, are due to chronic disease of the nose, many of these cases would be easily cured, and the number of cases of children, victims of the so-called pressure in education, would be, I firmly believe, notably diminished."

The earlier the mischief is checked, the less grave will be the consequences for the child's education and physique. If dealt with in infancy or early childhood, there is nothing alarming in the affection, but the matter becomes grave when it is mistaken by teachers for stupidity and dullness, when children, who, free from adenoids would be quite intelligent, are punished by teachers and disliked by their fellow pupils.

If the tonsils are enlarged they should be removed. The prompt removal of adenoid vegetations from the naso-pharynx has resulted in a complete change of character and mental capacity in the pupil. If hypertrophied tonsils and adenoids are present in the same case, the obstructive breathing with the thick, disagreeable voice will scarcely be improved by simple tonsillotomy. In such cases, the adenoids are the important factor in the causation of the symptoms. After a correct diagnosis of the conditions has been made, the required operation will suggest itself.

J. J. C.

HALIFAX MEETING OF THE CANADIAN MEDICAL ASSOCIATION.

The thirty-eighth annual meeting of our National Association convened in Halifax, N.S., on the 23rd of August, and remained in session till the evening of the 25th. It was one of the best meetings ever held, and was attended by 222 physicians, many from the most distant parts of the Dominion. The Halifax meeting was, therefore, the third largest ever held since the inception of the Association. The papers, a list of which we published in a recent issue, were more than usually interesting, and we are glad to state that, with very few exceptions, those promising papers were present at the meeting to read them in person. This, we trust, will be the case more and more, and that all who undertake to read a paper or take part in a discussion will consider it a sacred duty to materialize and fulfil their obligation. We extremely regret that, notwithstanding all our efforts to secure for this issue a report of the meeting and an abstract of the different addresses, it was impossible to do so owing to the services of a medical stenographer not being available. We append the more interesting reports presented, and what we lack in this issue of the Journal we hope to more than make up for by giving

our readers from month to month during the autumn, under "Original Contributions," the different addresses presented and papers read by the various members. We are enabled, in this issue, to present one or two half-tones of some of the more interesting points in the city of Halifax, visited by some of the delegates when away.

General Secretary's Report.

Two hundred and sixty-seven names were inscribed on the treasurer's register at the thirty-seventh annual meeting of the Canadian Medical Association held in Vancouver, B.C., from the 22nd to the 25th of August, 1904. It was the third largest meeting in the history of the Association. Of this number

HALIFAX CITADEL.

sixty-one were guests, several distinguished members of the profession being present from Great Britain and the United States. Two hundred and six were from the Dominion of Canada; and the fact bears some significance, that our guests at that meeting numbered nearly one-third of the attendance from our own profession in Canada. In detail the attendance may be grouped as follows; Vancouver, 40; Victoria and the province, 40; Ontario, 56; Quebec, 21; N.W.T., 19; Manitoba, 18; New Brunswick, 3; Nova Scotia, 6; P.E.I., 3; England, 3; Scotland, 1; United States, 55; R.M.S. *Athenian*, 1; S.S. *Empress of China*, 1. One hundred and one new members were added to our list, that number having been elected to membership; and there were present forty-three members of the profession in Canada who did not seek membership in our association, which number was about

one-half of the previous year. Amongst the number were some who took a prominent part in the proceedings of the meeting, such as delivering addresses of welcome, acting on the Nominating Committee, etc. This seems rather anomalous, and I respectfully call your attention to it. I call your attention to a notice of motion handed in by Dr. H. B. Small, Ottawa, at the last meeting: "That the members from each province, present at an annual meeting, elect from themselves three representative members, who, together with the President, Secretary and Treasurer, shall con-

ENTRANCE TO CITADEL, HALIFAX.

stitute the Executive Council of the Association." This is a radical step towards amending the Constitution, appears like the thin end of the wedge towards reorganization, and is deserving of your most careful and serious consideration. Although no official acceptance of the invitation sent by this Association to the British Medical Association, to convene in Canada in 1906, has been received, it is understood that that Association has accepted this invitation, and the additional invitation forwarded by the profession of Toronto, to meet in the Queen City of Canada. The meeting of this well-organized body in Canada

will, I trust, excite some interest in the reorganization of Canada's national medical organization. It is with sorrow that I report the death of one of our past-presidents, Dr. James Thorburn, Toronto, since our last meeting. Dr. Thorburn filled the office of President in 1895-6.

Report of Special Committee on Public Health.

As convener of your sub-committee *in re* the creation of a Department of Public Health as a Dominion measure, I have the honor to report that practically no advance has been made since we first presented your views to the Federal Government

CITY HALL, HALIFAX.

on this important question three years ago. Strong resolutions have been passed by your Association containing the views of the profession on this matter, year after year, and they have been duly forwarded to the proper authorities at Ottawa, to say nothing of the personal representations of your sub-committee, conveyed to the Government by way of deputation and personal interview. On the last occasion on which I waited upon the Hon. the Minister of Agriculture, he pointed out to me that he was familiar with the views of our Association as contained in the several resolutions referred to above, and that it appeared to him to be unnecessary to call the committee to Ottawa to reiterate what we had so clearly laid before him. He assured

me that the whole question had his entire sympathy and that he trusted to see such a scheme as had been outlined to him brought into operation. And he further said that it was his intention to bring the matter again to the attention of the Prime Minister, he hoped at a date sufficiently early to enable him to give something rather definite for our meeting at Halifax. Your committee feel that they have done what they could to induce the Government at Ottawa to create a Department of Public Health, under one of the existing ministers, in order to place this important branch of the public service on the same footing as it stands in nearly all progressive countries. We regret, however, to be obliged to report that so far our efforts have been unavailing, and as we believe that a more powerful and influential committee is needed from this Association to more seriously impress the Government with the great importance of this question, we respectfully ask to be discharged.—R. W. Powell, *Convener.*

Resolution *re* Public Health.

That a committee be appointed from this Association to wait upon the Dominion Government and lay before them the several resolutions now on the books of this Association in reference to the creation of a Department of Public Health, in order that all matters pertaining to the public health, over which the Dominion Government has jurisdiction, may be administered under one official head. That the committee be requested to impress upon the Government the great importance and public utility of this matter, and that it is the wish of the medical profession in the Dominion, as represented by the Canadian Medical Association, that such an advance should be made in this branch of the public service. That the committee consist of: Dr. E. P. Lachapelle (convener), Montreal; Dr. R. W. Powell, Ottawa; Dr. Daniel, M.P., St. John; Lt.-Col. Carleton Jones, Halifax; Dr. H. A. Bruce, Toronto; Dr. H. H. Chown, Winnipeg; with power to add to their number.—*Carried.*

Report of Nominating Committee.

Place of meeting in 1906: Toronto, at same time as British Medical Association meeting. President: Dr. Alexander McPhedran, Toronto. General Secretary: Dr. George Elliott,

203 Beverley Street, Toronto. Treasurer: Dr. H. B. Small, Ottawa. Vice-Presidents: Dr. H. D. Johnson, Charlottetown, P.E.I.; Dr. G. Carleton Jones, Halifax, N.S.; Dr. Emery, St. John, N.B.; Dr. H. S. Birkett, Montreal, Que.; Dr. J. D. Courteney, Ottawa, Ont.; Dr. S. P. Prowse, Winnipeg, Man.; Dr. H. G. McKid, Sr., Calgary, Alta.; Dr. R. E. McKechnie, Vancouver, B.C. Local Secretaries: Dr. Simpson, New Glasgow, P.E.I.; Dr. J. R. Corston, Halifax, N.S.; Dr. J. A. Seammell, St. John, N.B.; Dr. Ridley McKenzie, Montreal, Que.; Dr. Harold Parsons, Toronto, Ont.; Dr. J. R. Davidson, Winnipeg, Man.; Dr. J. Hislop, Edmonton, Alta.; Dr. W. H. Sutherland, Revelstoke, B.C. Executive Council: Dr. W. P. Caven, Toronto; Dr. A. A. Macdonald, Toronto; Dr. F. LeM. Grasett, Toronto.—F. N. G. Starr, Chairman, Nominating Committee.

Toronto, Next Year.

The meeting next year convenes in Toronto, under the Presidency of Dr. Alex. McPhedran (who, we feel sure, will fill that office most acceptably) at the same time as the British Medical Association, and as was urged in last month's editorial, we trust that every member of the profession in Canada, no matter where he resides, will make a mental note of the meeting for 1906, and take his vacation at that time, so that the Canadian Medical Association meeting for next year will live in the minds of all, as by all odds the banner one in the 39 years of its existence. We are glad to know that a Reorganization Committee was appointed this year. They have several very important points to consider, among them being (*a*) the formation of Branches of the Association in the different cities of the Dominion, (*b*) the question of permanent membership, (*c*) the publication of a weekly journal, (*d*) the raising of the fee to $5.00 per annum. Dr. McPhedran was elected chairman of this important committee, though we understand that he has requested Mr. Irving Cameron to act in his place. We hope the Committee will go to work with vim this winter and use every effort to so reorganize our Association as to place it on a par in many respects with the American Medical Association. W. A. Y.

RENDER UNTO CÆSAR.

It is getting to be a very expensive thing to own a house or property in the city of Toronto Why should the citizens (God-fearing and otherwise) have such high taxes to pay, while churches, a Sunday School Institute, so called, on College Street, where every room, excepting the parlor, is let to lodgers, are tax free, and all sorts of other *quasi* religious and misnamed philanthropic institutions, originated by fanatics, are appealing to be exempt from taxation? Many of these appeals seem likely to be granted, for the Board of Control are mute, and when spoken to by citizens,

> "Some trod out stealthily and slow,
> As if the sun would fall in snow,
> If *they* walked to, instead of fro."

The only answer to our why so far is, Echo answers—"Why."

More preposterous still, in the eyes of the medical profession, is the new business tax. Is this to make up for the leniency to such institutions as we have referred to, and to the Home for the Victorian Order of Nurses on Spadina Ave.? The exemption of this building is another imposition levied on the householders of Toronto. We intended discussing this subject further, but upon reading an editorial in *Saturday Night* (Sept. 16th), we have torn up the feeble remarks we had scribbled, and quote here the forceful view of the editor of that paper on this subject:

"Last Monday the Court of Revision allowed the appeal of the Victorian Order of Nurses for exemption from taxation on their premises, 206 Spadina Ave. City Relief Officer Taylor, who is probably the best informed man in the city with regard to such matters, considers that this action was uncalled for, as the Order received last year $1,591.40 in fees from patients, $3,526 in subscriptions, making a total of $5,117.40. The staff consists of seven nurses and one superintendent, whose salaries aggregate $2,239, besides a home which is free of encumbrances. 'We have in this city,' continued Mr. Taylor, 'two nursing-at-home missions, the work of which is confined to the poor. These missions do what may be considered the nursing of the city's destitute, and it is very efficiently done.' This must seem to

reasonable people sufficient grounds for Mr. Taylor's opposition to what is practically the granting of more money to a branch of an order which never would have been started had it not been for the vanity and fussiness of Lady Aberdeen. The Victorian nurses compete for pay-patients directly with the trained nurses of this city, who depend for their livelihood not on a semi-charitable, largely subsidized association, but upon their own exertions, and if they acquire by industry a little property it has to pay taxes.

"The cancellation of taxes on an assessment of $3,585 on the St. Clement's Club in William street, on the ground that it was a philanthropic institution, a part of church property, was no more defensible than the exempting of the $4,000 property on the Sunday School Institute, at 141 College street, though both are examples of the working of an unjust system. In the first instance Rev. Father Barrett appeared on behalf of the Redemptorist Fathers; in the second case Rev. Dr. Courtice, a well-known Methodist minister, pressed the appeal, and Mr. Defoe, the Catholic representative on the Court of Revision, was the one to suggest that the appeal be allowed. Here we see our Catholic and Methodist brethren working in beautiful harmony when it comes to a question of loading church burdens on secular shoulders. I consider that sort of thing as disgraceful as the recent salary grab at Ottawa.

"The Court of Revision also exempted the Y. M. C. A. branch at the Union Station, though it was pointed out to them that it was much of a business affair, in some respects competing with boarding-houses and restaurants. Taxes have been hunched on to the business public by this Board—and by the new assessment law—almost without mercy, yet apparently they love to appear brimming over with 'Charity.' Verily, of Faith, Hope and Charity the greatest graft is charity."

We hope that the magazine called *The Canadian Nurse* will deem it a duty to take up this subject, of the Victorian Order, on behalf of those graduate nurses all over Canada, struggling to earn their living and who chiefly constitute its subscribers, and thrash it out. Women, as a rule, with a purpose under their bonnet, are fearless, and often say the "last word" with eloquence and effectiveness.

W. A. Y.

EDITORIAL NOTES.

A Physiological View of Death.—Professor Metchnikoff, in a work entitled "The Nature of Man," proposes the theory that, if we live as long as nature intended, we develop "an instinct of death," and eventually lose the wish to live longer. This view is in accordance with common observation. Very old people, having outlived their joys and sorrows, no longer fear dissolution, but rather welcome it, if not with positive pleasure, at least with resignation and equanimity.

> "First our pleasures die, and then
> Our hopes and then our fears, and when
> These are dead, the debt is due.
> Dust claims dust, and we die too."

When life gives little but pain and regret, the sufferer longs ardently for sleep, whose lenient power soothes disease and pain, giving repose to the wretched body, steeping the senses in forgetfulness. And death to the worn-out, aged sufferer seems like a twin-sister of sleep. Besides, the close of a long and active life seems like the approach of wished-for rest, all the more welcome because of an overpowering sense of weariness. There are cases in which mental and physical suffering is continued to nearly the end of life. In such cases the end is welcomed as a relief. In others, and happily for the dying person, as well as the bystanders, painless deaths occur. Some observers have thought that painless deaths outnumber the painful ones fully ten to one. It should also be noted that convulsive struggles, labored breathing and symptoms which ordinarily indicate distress are usually of a reflex character, when noticeable at the close of life. The almost invariable testimony of those who have seen death in many forms is, that the end comes peacefully and the dying one seems to be passing into a quiet slumber.

Imitation Fevers.—The imitation of fever is said to be accomplished with success by malingerers. That is to say, certain patients find it possible to induce a thermometer to show a higher temperature than that of the body. The means by which a thermometer is induced to show a fever temperature are numerous. Hot drinks will produce a surprising elevation and so will hot

food. A cup of tea will send the mercury upward in a surprising way, and even hot potatoes or pudding will produce the desired result. A poultice or a hot fomentation will answer the purpose, and a hot water-bottle has also been pressed into the service, with the object of fooling the attendant, or of continuing to be the recipient of medical treatment. These are easy methods. Another one utilizes the effects of friction. If a clinical thermometer be grasped firmly near the lower end and the bulb rubbed on a piece of cloth—flannel is the most suitable material—the bulb will become quite hot. If not done carefully, this procedure may lead to the breaking of the glass at the constriction, just above the bulb of the thermometer. A writer in the London *Lancet* claims that malingerers can make the mercury rise a little higher in the tube by applying pressure to the bulb. The trick works best, he says, when a thermometer with a thin bulb is used, and when it is placed in the mouth, as the teeth can be used for the purpose of compression; but it may be done when the thermometer is in the armpit. Fleshy patients are, however, unable to accomplish this manœuvre. Hyperpyretic temperature, above 106 deg. F., should always excite suspicion in the mind of the clinician. In thermic fever temperature ranges from 106 deg. to 112 deg. In malignant scarlet fever the temperature is very high (106 to 107 deg.). In the perforative peritonitis of typhoid fever the temperature has reached 107 deg. before death. French ("Practice of Medicine," 2nd Edition, p. 695) writes of high temperature as follows: "Hysterical fever is one of the most interesting phenomena. In, perhaps, a majority of the cases, the elevation of temperature is due to deception, and the thermometer runs to the limit of its capacity, 110 deg. F., or higher; 150 deg. F. has been reached." We do not venture to say that all the cases of very high temperature, viz., 115 deg., 120 deg., and even higher, that have been recorded are fraudulent; but we think that in the majority of the cases there has been fraud.

Therapeutics of Neuritis.—D. R. Brower, Chicago, speaking at the Portland meeting of the A. M. A., said that intoxication was probably the basis of all cases of neuritis, and, of all the agents, alcohol is the most important, followed closely by arsenic, lead and the coal-tar products. He asserted, that no case could be successfully treated until the cause was removed. Absolute rest is essential in every case. The depressing coal-tar products must

be avoided. Often heat or cold, as intense as possible, will give relief. The galvanic current will often give prompt relief from pain. When the galvanic current fails a hypodermic injection of morphine and atropine may be used. The bowels, skin and kidneys must be made active. A mercurial purge (calomel) should be given at the beginning of the treatment. After the bowels have been made active, if insomnia and pain continue, a dose of Dover's powder at bedtime will be useful. Hypodermic injections of strychnine into the muscles will often aid in the restoration of the functions when massage and electrical treatment fail. (1) Guard against cardiac and respiratory failure with strychnine sulphate and spartein sulphate, in grave cases hypodermically, the dose of the former being from 1-3 gr. to 1-15 gr., and of the latter 1-4 gr. to 1-2 gr., in from three to six hours; (2) secure absolute rest; (3) remove the cause; (4) relieve the pain; (5) eliminate the toxins; (6) remove inflammation from the nerve trunks; (7) attend to the general constitutional state; (8) improve the nutrition of the paralysed muscles.

The Yellow Fever Situation at New Orleans.—The great causes of the spread of yellow fever in New Orleans appear to be the concealment of cases and the change of residence of people who have been infected. Dozens of cases are on record which show that the patient had moved away from a house where infection had existed. The municipal board of health announces that physicians who fail to report cases of yellow fever will be prosecuted under a city ordinance. The federal authorities will not interfere in any way with physicians who report the cases of this disease occurring in their practice and, by a room-to-room inspection of the whole city, they expect to discover every case of yellow fever that exists in New Orleans. Sweeping orders have been issued to the police to prosecute all landlords and agents who fail to screen cisterns. A special despatch to the *World* (New York) says: "Despite the fact that it was the Sabbath, August 13, more work was done in cleaning the city than on any one day since the plague began. Over 1,000 carts of every description were used in the work, and thousands of loads of dirt and debris were removed. Commissioner of Public Works Smith and Mayor Behrman personally conducted the cleaning operations. An appeal was made to draymen, contractors and all concerns owning

carts for the free use of their vehicles. There was a patriotic response, many firms giving the use of their employees as well. As a result New Orleans was given its first genuine cleaning in years. When the men quit after a long day's work, sidewalks which had been impeded with high grass, and vacant lots which had contained stagnant pools of mosquito-breeding water were cleared. The day's operations had been planned under the direction of Surgeon White, and his inspectors were on hand from morning until night directing the work." Up to August 20th, there had been 1,397 cases and 201 deaths, a case mortality of 14.38 per 1,000. In 1878, up to August 20th of that year, 1,355 cases of yellow fever and 496 deaths were reported, a case mortality of 36.60 per 1,000. As the average mortality in yellow fever ranges in different epidemics from twenty to seventy per cent., the mortality in New Orleans was not excessive in 1878, and in 1905 may be considered to be a low one.

The Profession and Tuberculosis.—In the combined effort which is being made to put down tuberculosis, success will depend largely on the attitude and conduct of the medical profession. Early recognition of the disease is a duty, from which a physician should on no account allow himself to swerve. For it is now axiomatic that any measure of success gained in the treatment of this disease is dependent on its early recognition in the individual. The discovery of bacilli in the tissues or discharges from a diseased area establishes the tuberculous character of the disease, but in the pulmonary form, the most frequent, most serious, and therefore, most important of all forms, the bacilli do not appear until a comparatively advanced stage has been reached. The tuberculin test is regarded as safe and sure by some physicians, but a majority condemn it, because its use lights up a latent process; the fever of reaction is continued into a fever of tuberculization, and the diagnosis is confirmed, while the disease itself is made to run a more rapid course. The value of the test is also modified by the fact, repeatedly observed, that it sometimes reacts in perfectly healthy persons and fails in those who are afterwards proved to have been tuberculous. Of the two tests, the demonstration of the bacilli is by far the more valuable. The X-ray has also been used for the demonstration of tubercular areas in the lungs; but an area sufficiently large to be re-

vealed by this means is almost always discoverable by auscultation and percussion. In the great majority of cases a study of the symptoms, aided by a physical examination, will enable the physician to make a correct diagnosis. An examination of the sputum should however, always be made, as it is the most positive means of differentiating bronchiectasis, chronic interstitial pneumonia, syphilis, malignant diseases of the lung, anemia, heart disease, gastritis and nephritis, which may be confounded with tuberculosis. The important elements in the diagnosis of tubercular disease of the lungs are the well-known physical signs of the disease.

J. J. C.

PERSONALS.

Dr. Migneau and Dr. Simard, of Montreal, were guests at the King Edward last month, having come up to take part in the polo tournament.

Dr. Joseph John Williams, of Lisle, has been appointed Medical Superintendent of the Asylum for Epileptics at Woodstock. New appointment.

The staff of the Victoria Hospital for Sick Children gave a dance for Dr. Whyte at the Lakeside Home, July 27th, as he was severing his connection with the hospital. An enjoyable evening was spent.

A laboratory is about to be started in connection with the Victoria Hospital, Fredericton, N.B. It will be in charge of Mr. R. H. McGrath, who recently took a course in laboratory work in the Royal Victoria Hospital, Montreal.

The marriage of Miss May Toller, daughter of Lieut.-Col. F. Toller, Ottawa, to Dr. J. E. Cranston, jr., of Arnprior, has been arranged to take place in All Saints' Church, Ottawa, on Wednesday, the 4th inst.

Dr. E. A. Spilsbury, formerly surgeon of Nose and Throat Department, Toronto General Hospital, but now surgeon on the staff of Manhattan Eye, Ear and Throat Hospital, New York, was recently in the city renewing old acquaintances.

Dr. C. I. Dewar, one of Ottawa's best known physicians, died on Sept. 7th from acute kidney troubles. He was taken seriously ill during the night and was cut off with great suddenness. He was about 40 years of age, and enjoyed a large practice.

Dr. Allan Kinghorn, one of the house surgeons at the Toronto General Hospital, has been awarded the Johnston colonial scholarship in the University of Liverpool. He will take up original pathological research. Dr. Kinghorn succeeds a Canadian, who held the scholarship last year.

The engagement is announced of Miss Edna May Sayers, daughter of the late Mr. J. T. Sayers, of Hamilton, and Mrs. Sayers, to Dr. Charles Hawkins Gilmour, son of Dr. J. T. Gilmour, Toronto. The marriage will take place quietly this month.

Dr. D. H. Harrison, the former Premier of Manitoba, is dead. He was born at London, Ont., was educated at Toronto, took office as Secretary of Agriculture in 1886, and became Premier in December, 1887. His Ministry resigned January, 1888, and was succeeded by the Government of Hon. Thomas Greenway.

Dr. Chas. A. Hickey has been appointed Medical Superintendent of Cobourg Asylum, *vice* Dr. E. T. McNicholl. Dr. Charles A. Hickey is a well-known Conservative, and represented Dundas in the House of Commons from 1882 to 1891. He was appointed superintendent of the Morrisburg Canal in the early nineties, but upon the change of Government at Ottawa in 1896 was removed from office. He then resumed his medical practice at Morrisburg. He is a Methodist.

Dr. W. Deas Kerswill died suddenly on Wednesday morning at "The Manse," Oakville, the residence of Dr. and Mrs. McNair. He was professor of Old Testament literature in Lincoln University, Pa., and had been spending a few days with his Oakville friends. He had not been in good health for some time. He was born in Middlesex County in 1863, and was educated at Strathroy, Toronto University, and Princeton Seminary. He is survived by Mrs. Kerswill, niece of President Rendall, of Lincoln University, and two young children.

Dr. C. K. Clarke, of Rockwood Asylum, Kingston, has been appointed Medical Superintendent of Toronto Asylum, *vice* Dr. Daniel Clark, resigned. Dr. C. K. Clarke, a graduate of Toronto University, commenced his professional work in asylums in 1874 in Toronto. In 1880 he was appointed assistant medical superintendent of the Hamilton Asylum, and became medical superintendent of Rockwood Asylum, Kingston, in 1885. He is also professor of mental diseases in Queen's University, and is one of the most experienced of Canadian experts on mental diseases. He is an Anglican.

Dr. Edward Ryan, of Kingston, has been appointed Medical Superintendent of Rockwood, *vice* Dr. C. K. Clarke. Dr. Edward Ryan, of Kingston, has been practising in Kingston, Ontario, for many years, and is one of the Limestone City's prominent physicians. He is a graduate of Queen's University, Kingston, and is President of the Kingston Conservative Association. He unsuccessfully contested Kingston in the Conservative interests in 1902, against the present member, Mr. E. J. B. Pense. He is associate professor of clinical medicine at Queen's University, and chief medical officer of the Catholic Mutual Benevolent Association. In religion he is a Catholic.

Correspondence.

The Editor cannot hold himself responsible for any views expressed in this Department.

"THE PHYSICIAN AND THE PHARMACIST."

Toronto, August 29th, 1905.

To the Editor of The Canadian Journal of Medicine and Surgery :

Dear Sir,—I beg to enclose herewith a short paper entitled "The Physician and the Pharmacist," prepared with the hope of reading it before the Annual Meeting of the Council of the College of Physicians and Surgeons, in July last. I was allowed to appear before the Educational Committee of the Council, but was not permitted to read the paper.

May I request you to publish the paper in the next issue of your journal, and so enable me to enquire through its columns, if the suggestion presented therein—that a committee should be appointed by both bodies for the purpose of mutual conferences—would not be considered by the Medical Profession an advance in the right direction.

I do not desire to allude to the existence or non-existence of any virtues on the part of either Physician or Pharmacist. Admitting, however, that all else may be perfectly satisfactory to both callings, there still remains a very large field to which committees could most profitably devote serious consideration, in the questions of the progress of medicine as affecting pharmacy, and the advancement of pharmacy as affecting medicine.

The Council of the Ontario College of Pharmacy have frequently requested the appointment of such a committee, during the past few years, and have about concluded that any further requests should come from the College of Physicians and Surgeons, and if it is desirable that Pharmacy and Medicine should unite on some common understanding (which I firmly believe it is) then how it is now to be accomplished?

Yours most faithfully,

John Hargreaves.

The Physician and the Pharmacist.

The object of my paper is simply to consider the subject as indicated by the title, in contra-distinction to what some would lead us to conclude is the existing condition—the Physician *versus* the Pharmacist, and to endeavor to accentuate and strengthen

the combining qualities of the conjunctive relationship that should prevail between the two bodies; for, while it cannot be disputed that pharmacy requires physic, we pharmacists as stoutly affirm that physic receives a very large part of its value through pharmacy. If a combination of physic and pharmacy produces an improved, modern, scientific product, an intelligent, honorable and professional combination or recognition between pharmacist and physician should produce a correspondingly progressive advance and improvement that would be of surpassing value to both.

The progress of pharmacy toward higher planes will bear favorable comparison with the rapid advancement made in recent years in the general educational system in Canada and elsewhere, and it may interest you to refer briefly to the very great advances secured by our Ontario College of Pharmacy. Only twenty-five years ago the educational requirements for a student to commence in pharmacy were practically *nil*. Before a young man can be registered as a pharmacy student to-day, he requires preliminary educational qualifications, equivalent to matriculation at Toronto University. The Ontario College of Pharmacy, in undertaking to educate these young men as Pharmacists, have provided a staff of most efficient teachers in each department (three of whom have chairs in your School of Medicine), a curriculum of studies, chemical and pharmaceutical laboratories, with equipments and appointments furnishing facilities for instruction in the line of advanced modern pharmaceutical education of the most thorough, theoretical and practical kind, and excelled by no similar institution on this continent. The College is affiliated with Toronto University, and our graduates are granted, upon examination, the degree of Bachelor of Pharmacy, and, may I here remark, very, very few of our graduates making application fail to obtain the degree.

Permit me also to refer to efforts prevailing throughout Ontario, in the way of agitation and discussion in our various Pharmaceutical Associations, tending towards nobler and higher ideals in the commercial phase of pharmacy—endeavors to prohibit, discriminate against and control the sale of noxious and habit-forming drugs—additions to the list of powerful poisons (required for the protection of the public), discussions on how to better regulate the handling of poisons and drugs against accidental and suicidal poisoning—the establishment of a Code of Ethics with ideals for commercial and professional conduct—the compilation of a book of formulæ for many medicaments largely prescribed by the Medical Profession, and for which no official standard formula exists.

These existing conditions and ambitions in pharmacy are noticed, that you may recognize what is transpiring with a view

of attaining to higher ideals, professionally and commercially. There must be the two conditions in pharmacy—an intensely commercial environment and a thoroughly professional training. Our College is endeavoring to harmonize these two, not by neglect of either, but rather by a higher and more perfect education and understanding of both. While admitting the strong commercial tendency in pharmacy, may I respectfully submit that medicine also possesses and requires more or less consideration of a commercial feature, and that the commercial element in both will remain as a powerful factor so long as the necessity for acquiring wealth and livelihood remains.

I maintain that all of these conditions and principles, with many others, should be very materially benefited and strengthened by the appointment of a standing committee in your College to confer with a standing committee of our College, on questions relating to Medicine and Pharmacy, as affecting both professions.

I present to your body to-day a few pamphlets of a Compendium of Formulas, published under the approval and recognition of the Ontario College of Pharmacy. The object and desire, as stated in the brief introductory preface, is to secure the co-operation and assistance of the Medical and Pharmaceutical Associations of Canada, and the edition is intended to serve as a practical illustration of the object intended, *the authorization and publication of uniform official standards for medicinal preparations, required by both professions.* In compiling and selecting formulas for the work, the Council of the Ontario College of Pharmacy are interesting other Pharmaceutical Associations in Canada. The Province of Quebec has appointed a committee of Pharmaceutical Research, composed of leading pharmacists in that province. Our council have a standing committee, composed of H. Waters, Ottawa; W. A. Karn, Woodstock; R. A. Harrison, Dunnville; E. W. Case, Picton, and John Hargreaves, Toronto, a representative committee from every point of consideration. The book has been submitted to the thirteen electoral districts into which Ontario is divided by our College, and a full discussion and criticism of the proposition by the Pharmacists is expected. Throughout Ontario, each district has, or will appoint, a Pharmacy Committee to aid and advise our Central Committee, demonstrating the active interest that is being manifested.

From the outset, we have desired and have endeavored to secure the recognition and co-operation of Medical Associations, believing, as we do, that the great advances in present-day pharmacy should be coupled with the approval of the present-day medical practitioner, for there are features in connection with, or prior to, the final adoption of formulæ that should be submitted to the physician for comment and judgment.

May I request your earnest consideration of the question, and suggest the appointment of a Pharmacy Committee by your College, to co-operate with us in compiling, authorizing, and publishing an official Canadian Formulary, that will reflect credit on our professions and on our country, and to confer and consult with when occasion arises, with the further hope and desire that Medicine and Pharmacy may be so equitably and proportionately adjusted and combined, that the future of both will always be interlocked with the title of my subject—"The Physician and the Pharmacist."

[Our columns are placed at the disposal of any member of the profession for the discussion of this quite important subject, and we will be glad to hear at length from any practitioner who has any views he would like to express along those lines. The sooner the matter is taken up, the better it will be for all concerned.—Ed.]

News of the Month.

DR. DANIEL CLARK'S RESIGNATION.

Dr. Daniel Clark, who has resigned the position of Medical Superintendent of Toronto Asylum, was born in Inverness-shire, Scotland, on August 29th, 1835. He came to Canada in 1841, and spent his early years on a farm. In 1851 he attended the Simcoe Grammar School and followed his medical studies in Toronto School of Medicine. Subsequently he followed a course of lectures in Edinburgh, London and Paris. He began the practice of medicine at Princeton in 1859. Before the close of the Civil war he joined the Federal Army of the Republic, under General Grant as a volunteer surgeon. Returning to Canada he was elected a member of the Ontario Medical Council in 1872, and has been twice elected president of the College of Physicians and Surgeons. He was elected President of the American Medico-Psychological Association, and Vice-President of the New York Medico-Legal Association. He lectured on Medical Psychology as Professor of the Toronto University for fifteen years, and is one of its graduates. He examined in chemistry, gynecology and obstetrics, the graduating classes. He has published a novel, "Josiah Garth," based on the rebellion of 1837; a work of sketches of travels and of celebrated persons he had met, styled "Pen Photographs," which went through two editions; also "The Animated Molecule and its nearest Relatives"; a text-book on "Mental Diseases," which is used by Toronto University and several medical colleges in U. S. He has written many works of value to the medical profession, and has more than a continental reputation as an authority and expert on the treatment of the insane.

When a young man in his teens, he went to California by the Isthmus of Panama, and was over three months travelling to the land of gold, and spent nearly two years in the Sierra Nevada mountains in the gold bearing canyons. The desire to procure a professional education took him home. His appointment to the Superintendency of Toronto Asylum was made because of the unanimous desire of the Medical Council and of many medical organizations in the province, and was unsolicited by him. He had a propensity to study metaphysics and mental disorders,

and while at college he carried off a Bursary along that line of study.

As far as known he was the first in Canada to perform the operation of hysterectomy in 1860, assisted by the late Dr. Turquand, of Woodstock, and the late Dr. Chrysler, of Burford. Sir Wm. Hingston, of Montreal, performed it about a year afterwards.

He also performed transfusion of blood on several patients in the hope that it might ameliorate the condition of the consumptives. Such was the result with several thus afflicted.

It is interesting to note that over 5,000 cases came under his care in the thirty years of his incumbency, and over 2,000 have recovered and over 1,000 improved. The high character of the Institution has been maintained through these thirty years, and no slander or mal-administration has occurred in connection with its difficult executive work. The doctor has the best wishes of the profession on his retirement, but it is possible he may be often consulted in cases of mental disorder.

RECENT CHANGES MADE BY THE ONTARIO GOVERNMENT.

As announced elsewhere in this issue, Dr. C. K. Clarke, Superintendent till recently of Rockwood Asylum, Kingston, has been promoted to Toronto Asylum, *vice* Dr. Daniel Clark, resigned. This is but one of the several changes made in the medical superintendency of the different Provincial Asylums.

The appointment of Messrs. S. A. Armstrong and E. R. Rogers as Inspectors of Prisons and Public Charities, in succession to Messrs. Christie and Noxon, resigned, is understood to be the first step in an important rearrangement of the method of dealing with the asylums and prisons, one result of which will probably be the dispensing with the services of a number of officials. The plan involves the doing away with the old scheme of each inspector having a certain amount of control over specific institutions, and the adoption of the direction of all the business connected with the institutions from the offices at the Parliament buildings. Thus Mr. Rogers, who is a business man of experience, will have charge of the purchasing of all supplies for institutions under direct Provincial control. This will relieve bursars of much of their present responsibilities and work, and it will also, it is believed, enable the department to dispense with several assistant bursars and storekeepers, whose places will not be refilled. Mr. S. A. Armstrong, who is a lawyer, will look after the estates of lunatics in the Pro-

vincial asylums. The statute provides that this shall be the duty of the senior inspector, who was Mr. Christie, the man Mr. Armstrong succeeds. Mr. Noxon was next in seniority, and Dr. Bruce Smith third. Messrs. Christie and Noxon having resigned, Dr. Bruce Smith became senior, but it was desired to have a legal man take hold of the work of that position, and to advise on any other legal points that might arise. Accordingly, by arrangement the doctor also resigned, but was reappointed after Mr. Armstrong had received his commission. Thus the statute was complied with. Dr. Bruce Smith will continue, as heretofore, to be inspector of the common jails, hospitals and charities, a position which he has already proved himself to be admirably able to fill.

TUBERCULOSIS CONGRESS AT PARIS THIS MONTH.

Great preparations are being made at Paris, France, for the tuberculosis congress, which will be attended by delegates from all the nations of Europe and America. A special building has been set apart for their use, with large halls to accommodate the different sections. These are divided into scientific, social, historic, and industrial.

There will also be an exposition of food products permitted and recommended by physicians in tuberculosis cases. Rooms will be fitted up like those in sanatoria, and three classes, those destined for rich patients, those for middle classes and those for the poor. Special exhibits will be made of pharmacy for tuberculosis and of housefurnishings, such as armchairs and baths for patients. Cleansing and disinfecting apparatus will also be displayed.

One very interesting section shows two rooms. One is fitted up hygienically, under the patronage of the Touring Club. The other is arranged with curtains, carpets and canopies to the beds, lacking light and air, and showing what should be avoided in tuberculosis. The exhibits will remain on view until Oct. 29, and will afterward be presented to the city of Paris, forming the nucleus of a proposed tuberculosis museum.

At the congress, which will last from Oct. 2 to 7, Dr. Bouchard will preside over the pathological medical section; Dr. Lannelogue over the pathological surgical section; Dr. Granchcr over that devoted to the preservation and care of infants, and Dr. Landouzy and Senator Paul Strauss over that which concerns the preservation and care of adults.

Dr. Herard, president of the congress, will give a reception to the delegates on the opening day, Oct. 2, in the Hotel Con-

tinental. President Loubet will give a banquet to the delegates at the Elysee Palace and on Oct. 7, at the Hotel de Ville, a farewell banquet will be given, at which books will be distributed, giving reports of the proceedings of the congress.

IMPERIAL REGISTRATION.

General Laurie's Bill to amend the Medical Act of 1886 has passed the House of Commons of Great Britain. This amendment states that where any part of a British possession is under a central and also a local legislature His Majesty may, by Order-in-Council, declare that the part which is under the local legislature shall be deemed a separate British possession.

Under the present arrangements a graduate of a Canadian university wishing to practise in Great Britain, or enter the Imperial service, must first pass the examination of the General Council of Medical Education in primary and secondary subjects. If now the provinces decide to avail themselves of the provisions of General Laurie's Bill, a reciprocal arrangement might be entered into by which the passing of the provincial examination would be sufficient to allow a Canadian graduate to enter the army or navy or to practise in Great Britain.

The provisions fall short of those in Dr. Roddick's Dominion Registration Act in this respect, that a person so qualified would not necessarily be permitted to practise in every province in Canada or in the other British dominions.

This is a considerable advance towards unification of the profession, and it now rests with each province to avail itself of the provisions which are offered.—*Montreal Medical Journal.*

ITEMS OF INTEREST.

Additions to the Royal Alexandra Hospital, Fergus.—The Royal Alexandra Hospital, Fergus, has been enlarged, another flat having been added, as well as extensive improvements to the interior.

List of Changes in 8th Revised U. S. Pharmacopeia.—With their usual forethought, the firm of H. K. Mulford & Co., Philadelphia, are preparing a small folder, suitable for pasting in prescription books, giving the changes that became effectual on Sept. 1st, 1905, according to the 8th revision of the U. S. Phar-

macopeia. This will be an exceedingly ready reference for the physician in writing his prescriptions. H. K. Mulford & Co. write us to say that they will be pleased to send a copy of this folder to any reader of this journal upon request.

Mississippi Valley Medical Association.—At the next meeting of the Mississippi Valley Medical Association, to be held at Indianapolis, Ind., October 10, 11, 12, the annual addresses will be delivered by Dr. Arthur R. Edwards, of Chicago, and Dr. W. D. Haggard, of Nashville, Tenn. Dr. Edwards has chosen for the subject of his address, "Certain Phases of Uremia, Their Diagnosis and Treatment," and Dr. Haggard will discuss in his address, "The Present Status of Surgery of the Stomach." In addition to these addresses there will be the annual address of the President, Dr. Bransford Lewis, of St. Louis. A cordial invitation is extended to every physician in the valley to attend this meeting, for which a large number of interesting and valuable papers have been promised.

The Epileptic Hospital at Woodstock.—The new Provincial hospital for epileptics at Woodstock was inspected on August 22nd by Hon. Dr. Reaume, Minister of Public Works, and his deputy, Mr. A. W. Campbell. This new institution, which is situated about a mile from the centre of the city, is on the cottage plan, and additions can thus be made at any time without trouble. The administration building is completed, and two cottages are nearly finished. These are all that will be erected at present, and will accommodate eighty patients. Dr. Reaume is much pleased with the buildings. He has made arrangements for a water supply from the city mains. The rate to be paid will be fixed later by the Provincial Secretary, under whose care the maintenance of the institution will pass as soon as it is ready to be opened for patients.

Cox's X-Ray Apparatus.—By referring to page xliii. of this issue of the JOURNAL, our readers will see the advertisement of Harry W. Cox, Ltd., of London, England. This firm has quite recently come into the Canadian market, and have appointed J. F. Hartz & Co., of 2 Richmond St. E., Toronto, their Dominion Agents. Harry W. Cox, Ltd., manufacture a full line of X-ray and other electro-therapeutic apparatus, all of the highest grade of English workmanship, combined with maximum efficiency. They are contractors to the admiralty, war office, colonial office, Indian government, etc. They publish a pamphlet containing "Practical Hints to Beginners in Radiography," and this can be obtained post free on application to J. F. Hartz & Co., Toronto. The goods of this firm are used in the large London and colonial

hospitals, and are spoken of very highly almost everywhere. Canadian physicians will be interested in reading the literature of Cox & Co., and should apply for it without delay to the agent in Toronto.

A Tribute to an ex-Medical Journalist.—We cheerfully publish this tribute (culled from the column entitled "Intercepted Letters," of a lay paper) to a brother practitioner, an ex-medical journal editor and—a man: "My dear Dr. Orr,—Your noble action in objecting to pay for the champagne consumed by the officers of the British navy evokes the heartfelt thanks of every Canadian mother. Perish the thought that in Toronto the Good the use of such fatal beverages should be approved by the manager of the Great and Only Show. I am sure that this magnificent protest of yours will echo down the corridors of time long after the bones of the Exhibition Directors have mingled with the sacred mud of their native city. George Washington and William Tell and Florence Nightingale are mere tinsel in comparison with your shining virtues. Long will it be told that you took a noble stand against the use of fizzy stuff by the officers of the 'King's Navee.' I shall drink your health in pure, sparkling Peruna at our next convention, and with best wishes, dear sir, believe me, teetotally yours, W. C. T. U." Toast to be honored, all standing.

Reduction in Price of Diphtheritic and Streptolytic Serum.—The firm of Frederick Stearns & Co., Windsor, Ont., have reduced materially the prices of their Diphtheritic and Streptolytic Serum. In the past, it has justly been claimed that those serums have been held at much too high a figure, so much so that many patients have simply been unable to purchase them, and too often has it been the case that the physician in attendance has himself paid for the serum rather than see his patient suffer from its want. The manufacturers claim that the main reason for the high prices has been due to the return of large quantities which have been held by the druggists and others stocking the goods until the expiration of the potency period, thus causing a material loss to those manufacturing the serum. In order to do away with this, Frederick Stearns & Co. have established depots at most of the principal centres, where their goods can be got without delay, so that from this date the exchange privilege will cease. Physicians can purchase their serums at 25 per cent. off the new list, making in all a considerable cheapening in price, which will be appreciated by both physician and patient alike. Fred Stearns & Co. have now depots at Halifax, N.S.; St. John, N.B.; Montreal, P.Q.; Ottawa, Toronto, and Hamilton, Ont.; Winnipeg, Man.; Regina, Sask.; Calgary, Alta., and Vancouver, B.C.

The Physician's Library.

BOOK REVIEWS.

Diseases of the Anus and Rectum. By D. H. Goodeal, F.R.C.S. (Eng.), Senior Surgeon (late House Suregon) to St. Mark's Hospital for Fistula and other Diseases of the Rectum; Senior Surgeon to the Metropolitan Hospital, and W. Ernest Miles, F.R.C.S. (Eng.), Surgeon (Out-Patients) to the Gordon Hospital for Diseases of the Rectum; Assistant Surgeon to the Cancer Hospital, Brompton; late Senior Demonstrator of Anatomy at St. Bartholomew's Hospital Medical School, and House Surgeon to St. Mark's Hospital for Fistula and other Diseases of the Rectum, etc. In two parts, illustrated, Vols. I. and II.

Vol. I. contains 311 pages and 91 illustrations, 76 of which are original. Vol. II. contains 271 pages and 44 original illustrations. Each volume has a good index. These volumes are nicely bound, on good paper, and with good, clear type. They are neat and convenient to handle. The work is thoroughly up-to-date, and is the result of the personal experience of the authors, extending over periods of thirty years and six years, respectively. The methods of treatment are those found best by the authors. There is no objectionable padding. The symptoms, diagnosis, differential diagnosis and treatment are given in clear and concise language, and the various recognized operations are compared in such a way as to make the work very laudable to the general practitioner. W. J. W.

Appendicitis: Its Diagnosis and Treatment. By John B. Deaver, M.D., Suregon-in-Chief to the German Hospital, Philadelphia. Third edition. Philadelphia: P. Blakiston's Son & Co., publishers.

O! thou villainous little *worm-like* structure! how often have we sat by the bedside and wondered as to your next move; and now, anxious moment, we sit by the library table with 457 pages of solid reading matter before us, and all about you. Will our burden never be lightened and will our labors never cease? If at this present moment we could devise some means whereby, in the process of evolution babes might be born without you, truly

we'd lessen the responsibility of the surgeon of the future, and there would be satisfaction in that; but would there, after all, for how would the poor surgeon live?

The work before us is excellent. The sixty-four full-page plates are works of art, and the whole get-up of the book is of the best.

To one interested in the subject a study of the chapter on the "History," is most interesting. Then, of course, the anatomy and the pathology are thoroughly gone into, the latter having been

There is a valuable section devoted to the "blood count," and entirely revised to bring it up to date.

a study thereof will add much to the clinical picture of a given case. The presence of leucocytosis in a given case adds much to one's understanding, but it is pointed out that its absence should not be taken as a negative sign.

The section on treatment has been entirely re-written by the author, and sticks to the ground taken on the first edition, namely, that early operation is the secret of success in a given case.

We can heartily commend the work to the profession.

S.

Hand-Book of Anatomy. Being a complete compend of anatomy, including the anatomy of the viscera, and numerous tables. By James K. Young, M.D., Professor of Orthopedic Surgery, Philadelphia Polyclinic; Clinical Professor of Orthopedic Surgery, Woman's Medical College of Pennsylvania; Instructor in Orthopedic Surgery, University of Pennsylvania; Fellow of the College of Physicians of Philadelphia, etc., etc. Second edition, revised and enlarged, with 171 engravings, some in colors. Philadelphia: F. A. Davis Company, Publishers. 1905.

This is a neatly gotten-up hand-book of anatomy. Some of its diagrams are especially fine. It is not merely a table of attachments, etc., but is full of first-class descriptions, so rendered down as to fill but a small space. It is especially valuable for students' reviews or to physicians wishing a handy-reference anatomy.

W. J. W.

The Office and Duties of Coroners in Canada and Newfoundland. By W. F. A. Boys, Junior County Court Judge, Simcoe County. 4th edition. Toronto: The Carswell Co. 1905.

In Ontario three or four factors have been chiefly responsible for the preservation, measurably, of the honor and dignity of the coroner's position. Those are, the appointment to the position of none but medical men; the oath that an inquest is necessary before a warrant can be issued; the non-elective nature of the

office here, removing it from the political arena, and, lastly, the full, accurate, logical and scholarly work of Judge Boys. For more than a generation this last factor has been in successive editions the sufficient and only guide of the coroners of this province, and to its influence can be traced no small part of the uniformity and completeness of the reports of inquests here. Those reports are constantly being used in our higher courts, and upon them practically all charges of murder or manslaughter are based. All who have to do with the criminal courts of our land can unite in congratulating Judge Boys upon the fact that his life has been spared beyond the allotted span, and that to this latest edition of his work he has been able to give a conscientious and discriminating revision. N. A. P.

Practical Pediatrics. A Manual of the Medical and Surgical Diseases of Infancy and Childhood. By Dr. E. Graetzer, editor of the *Centralblatt fur Kinderheilkunde* and the *Excerpta Medica.* Authorized translation, with numerous additions and notes, by Herman B. Sheffield, M.D., Instructor in Diseases of Children, and Attending Pediatrist, New York Post-Graduate Medical School and Hospital, etc. Philadelphia: F. A. Davis Co., publishers.

The above cannot be called an exhaustive treatise on the diseases of infancy and childhood. There is no attempt, for example, to classify gastro-intestinal disorders according to their pathology, but the work is full of clinical material, valuable therapeutic information and practical diagnostic aids, briefly and pointedly expressed. It is not a paraphrasing of old literature, but fresh and practical, and more of a "ready reference hand-book," and as such is valuable, not so much to the undergraduate, as to the practitioner. Part II., devoted to Materia Medica and Therapeutics, is exceedingly practical, and evidences careful clinical study. A. R. G.

Jackson on the Skin. A Ready Reference Hand-Book on Diseases of the Skin. By George Thomas Jackson, M.D., Chief of Clinic and Instructor in Dermatology, College of Physicians and Surgeons (Columbia University), New York. Fifth edition, enlarged and thoroughly revised. In one 12mo volume of 676 pages, with 91 engravings and 3 colored plates. Cloth, $2.75 net. Philadelphia and New York: Lea Brothers & Co., Publishers. 1905.

The value of this volume lies in the clearness of its symptomatology and diagnosis, and the excellent judgment used in its therapeutic recommendations.

The clear diction and the very convenient alphabetical arrange-

ment renders the work not only an exceedingly quick reference book for the busy physician, but adapts it especially to the needs of students. The demand for five large editions is ample evidence of the popularity of the book. Each edition presents a thorough revision of the subject, so that the work may always be consulted for the condition of the science of Dermatology as it really exists. The present revision has been particularly searching, and the subject-matter has been brought well up-to-date. The Appendix, containing formulæ for Baths, Lotions, Ointments, Powders, etc., and prescriptions for internal treatment is alone worth the price of the book.

As heretofore, symptomatology, diagnosis and treatment are specially considered. Many new sections have been added, resulting in a considerable enlargement of the work, and the volume is issued in full confidence that it will prove valuable to practitioners, students and teachers.

The Eye, Mind, Energy and Matter. By Charles Prentice, M.D., Chicago. 1905.

Dr. Prentice is known for his pronounced views as to the effects of eye strain. He now announces that the use of fogging eye-glasses cures drunkenness. The open-air treatment of consumption he thinks beneficial, because there is less eye strain in open-air life—the deduction that glasses cures consumption is easy,—for Prentice. Esophoria and exophoria are treated with prisms placed with bases in the opposite direction to that generally used. We wait for further pronouncements from Chicago.

M.

A Hand-Book of Intestinal Surgery. By Leonard A. Bidwell, F.R.C.S., Surgeon, West London Hospital; Lecturer on Intestinal Surgery and Dean of the Post-Graduate College; Consulting Surgeon to the Blackheath and Charlton and Dies Hospitals, etc. London: Balliere, Tindall & Cox, 8 Henrietta Street, Covent Garden. 1905. (All rights reserved.) Toronto: J. A. Carveth & Co., Ltd., 434 Yonge Street; Chandler & Massey, Limited, Toronto, Montreal and Winnipeg.

This little hand-book of 163 pages is a credit to both its author and publishers. The various operations in gastric and interstinal surgery are so clearly described and illustrated one cannot fail to understand them thoroughly. There are 91 illustrations, showing the various operations, methods of suture and sutures in position, and all of such a character that one can take in the methods at a glance. This work will prove invaluable to those interested in gastro-intestinal surgery. W. J. W.

The Detection of Poisons and Strong Drugs; including the quantitive estimation of medicinal principles in certain crude materials. By Dr. Wilhelm Autenrieth, Professor in the University of Freiburg. Authorized translation from the third enlarged German edition, by William H. Warren, Ph.D., Professor of Chemistry, Medical Department of Washington University, St. Louis, Mo. Seventeen illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1905.

In the translation of Professor Autenrieth's work for English-speaking students of medicine and pharmacy, the translator has endeavored to adhere as closely as possible to the original as was consistent with clearness. The author has compiled an excellent guide book for the laboratory of the toxicologist. The detection of blood has been briefly considered, as has also the biological researches of blood. The last chapter deals with the quantitive estimation of certain active principles in crude materials used in medicine. A most useful laboratory book. A. J. H.

A Text-Book of Medical Chemistry and Toxicology. By James W. Holland, M.D., Professor of Medical Chemistry and Toxicology, and Dean Jefferson Medical College, Philadelphia. Octavo volume of 600 pages, fully illustrated, including 8 plates in colors. Philadelphia and London: W. B. Saunders & Co. Canadian agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto. 1905. Cloth, $3.00 net.

Dr. Holland possesses the faculty of making even the most difficult and complicated chemical theories and formulæ easy and clear. This is probably due to his thirty-five years of practical experience in teaching chemistry and medicine. Recognizing that to understand physiologic chemistry students must first be informed upon points not referred to in most medical text-books, the author has included in his work the latest views of equilibrium of equations, mass-action, cryoscopy, osmotic pressure, dissociation of salts into ions, the effects of ionization upon electric conductivity, and the relationship between purin bodies, uric acid, and urea. Chemical substances he has treated from the standpoint of the medical student and physician, giving much more space to toxicology than is given in any other text-book on chemistry. The chapters on the clinical chemistry of milk, gastric contents, and the urine, and that on water supply and filtration are full of practical information. Dr. Holland's work will undoubtedly be gladly received by the profession, presenting as it does the mature experience of a practical teacher.

The Conjunctiva in Health and Disease. Being a record of some research work by N. Bishop Hannan, M.A., M.B. (Cantab.), F.R.C.S. Eng., Ophthalmic Surgeon to the Belgrave Hospital for Children. London: Bailliere, Tindall & Cox. 1905. 10s. 6d. net.

At this juncture, when trachoma is beginning to become frequent in Ontario, a work on diseases of the conjunctiva is most opportune. Trachoma, he regards as probably the result of an inoculation of the conjunctiva with the M. gonorrhea of an attenuated virulence. As for operative treatment he prefers gentle scraping with a sharp spoon, and regards most of the operative procedures as being worse than the disease; of medicinal applications he gives the palm to argent. nit., blue stone, and zinc chloride. A perusal of this chapter alone reveals the candor and honesty of the author, for he records failure even more fully than success. Altogether this is a most interesting work, in which scientific theories are put through the crucible of clinical experiment. J. M.

Superstition in Medicine. By Prof. Dr. Hugo Maguns. Authorized translation from the German. Edited by Dr. Julius L. Salinger, late Assistant Professor of Clinical Medicine, Jefferson Medical College, Physician to the Philadelphia General Hospital. New York and London: Funk & Wagnalls Company. 1905.

As the name implies, this is a description, and a very minute description, too, of the various errors that our forefathers fell into during the last 2,000 years, by mixing the natural and supernatural in medicine. Some of the cures are very interesting, but one cannot help being struck by the similarity which exists between these occurrences when both the operator and the patient "believed," and the same thing done to-day when the patient believes but the "fakir" knows the trick.

The similarity goes even further, as it would appear that as early as the third century Before Christ, one Hermon, of Thasos, recovered his sight by sleeping in the Epidaurean Temple of Esculapius, and went away without paying a fee—2,500 years later Mummolus slept in St. Andrew's Church at Pateras, and at midnight passed an "enormous calculus" and was cured. The financial part of this matter is not described.

The writer seems impressed with the belief in what he calls the "*Physico-Mechanical Theory of Life,*" and is grieved "that as medical knowledge in its entirety was contained in the cloisters of the middle ages" the "priesthood never seriously attempted to promote its enlightenment." In fact Christianity is blamed

for a good deal. The idea of any one, in the present day enlightenment, and "in spite of the wide acceptance of the *mechanical theory of life,*" "when this theory has won its greatest triumphs," who presupposes the therapeutic activity of God in all cases as a self-evident fact, is almost too much. He looks upon it as absurd that any one should still teach "that the existence of nature, independent of God, is not admissible," and goes on to mix up Christian belief that has stood the test of ages with the nefarious practices of those vampires who still prey upon the credulity of the public, under the cloak of religion, for the purposes simply and solely of gain. The mechanical theory of life, however, does not seem to have done much so far, as the writer finds it interesting to note, even now, that people are so easily misled; "when the advances of physical science have enlightened to some extent even the most unintellectual."

The latter part of the book is given up to astrology, with a short chapter on Medical Superstition and Insanity.

A. J. J.

The Development of the Human Body. A Manual of Human Embryology. By J. Playfair McMurrich, A.M., Ph.D., Professor of Anatomy in the University of Michigan. Second Edition, revised and enlarged, with 272 illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut St. 1904. Price $3.00.

The study of embryology is justly regarded as being very important. It alone gives the clue to the intelligent comprehension of the anatomy of the adult body. This work presents a concise statement of the various processes of development, and is well adapted to aid the student in his efforts to grasp the leading facts connected with embryology.

The popularity of Professor McMurrich's book is shown by the fact that a second edition is required so soon. A. E.

The Ophthalmic Year-Book. A digest of the literature of ophthalmology, with index of publications for the year 1903. By Edward Jackson, A.M., M.D., Emeritus Professor of Diseases of the Eye in the Philadelphia Polyclinic. Denver: The Herrick Book and Stationery Company. 1904.

This work appeals only to the specialist, but in it is to be found what cannot be had in any other single publication. No attempt is made to abstract all the articles which may have appeared, but simply the important things in sufficient detail to make them applicable in practice. Oculists owe Dr. Jackson a debt of gratitude for undertaking this work and carrying it out so thoroughly. M.

A Text-Book on the Practice of Gynecology For Practitioners and Students. By W. Easterly Ashton, M.D., LL.D., Fellow of the American Gynecologic Society; Professor of Gynecology in the Medico-Chirurgical College of Philadelphia. Octavo volume of 1079 pages, containing 1046 new and entirely original line drawings. Philadelphia and London: W. B. Saunders & Company. 1905. Cloth, $6.50 net; half Morocco, $7.50 net. Canadian agents: J. A. Carveth & Co., Limited, Toronto.

The great trouble with works on gynecology in the past has been that the authors took too much for granted. Dr Ashton, in his book, does not do so. He starts at the very foundation by first describing the examination of the organ itself and then goes on with the description of its diseases, in that manner leading his reader on bit by bit, and rendering his study much more interesting and unquestionably more instructive. The book contains over 1,000 illustrations, describing, in detail, the various operations and adding greatly to its value as a text-book. The first part of the book is given up to antiseptic technic, and a good deal of space is devoted to visceral injuries, a subject too apt to be hurriedly passed over by authors generally.

American Edition of Nothnagel's Practice—Diseases of the Kidney, Diseases of the Spleen, and Hemorrhagic Diseases. By Drs. H. Senator and M. Litten, of Berlin. Edited, with additions, by James B. Herrick, M.D., Professor of Medicine in Rush Medical College, Chicago. Octavo of 816 pages, illustrated. Philadelphia and London: W. B. Saunders & Co. Canadian Agents: J. A. Carveth & Co., Ltd., 434 Yonge Street, Toronto. Cloth, $5.00 net; half morocco, $6 net.

This is the eleventh volume of Saunders' American edition of Nothnagel's Practice, and the final volume on the heart is now in active preparation, and the publishers promise to have it ready soon.

The section on Diseases of the Kidney, by Senator, is very full, and the editor, Dr. Herrick, has added critical notes from time to time. He has also added articles on Cryoscopy and Phloridzin Glycosuria. This part of the book is good.

The section on Diseases of the Spleen and the Hemorrhagic Diseases is not so satisfactory. Those on the Spleen deal very largely with the pathology of Leukemia. It would have been more convenient and satisfactory to have had this discussion in the volume devoted to Diseases of the Blood. The editor adds valuable articles on the Mosquito and its relation to Malaria, on

Splenic Anemia, on Congenital Icterus with Splenomegaly, and on the X-rays in the treatment of Leukemia.

It is disappointing that there is to be no volume on Diseases affecting the Nervous System. Perhaps in time the omission may be filled. A. M'P

Hand-Book of the Anatomy and Diseases of the Eye and Ear. For Students and Practitioners. By D. B. St. John Roosa, M.D., Professor of Diseases of the Eye and Ear in the New York Post-Graduate Medical School, and A. Edwin Davis, M.A., M.D., Professor of Diseases of the Eye in the New York Post-Graduate Medical School. Philadelphia: F. A. Davis Co. 1904.

Prepared for the students of the New York Post-Graduate Medical School, to corroborate and amplify what they have seen in the clinics, this manual is marked by greater individuality than usual. The authors have not padded it with descriptions of methods now abandoned, yet well established procedures are fully described, and those that are on trial and giving promise have not been overlooked. M.

Dietetics for Nurses. By Julius Friedenwald, M.D., Clinical Professor of Diseases of the Stomach in the College of Physicians and Surgeons, Baltimore; and John Ruhrah, M.D., Clinical Professor of Diseases of Children in the College of Physicians and Surgeons, Baltimore. 12mo volume of 363 pages. Philadelphia and London: W. B. Saunders & Company. Toronto: J. A. Carveth & Co., Ltd. Cloth, $1.50 net. 1905.

Several good hand-books have lately appeared on cooking for the sick. This is one of the best, being complete, scientific and carefully adapted both to use in training schools and in the private practice of trained nurses. The physiology of digestion, infant feeding, diet in disease, diet lists, recipes, etc., all receive attention in this volume, which will be a welcome addition to the nurse's library. H. MacM.

Anesthetic Difficulties and How to Combat Them. Report of a paper read before the North-east London Medical Society, by A. De Prenderville, M.R.C.S. (Eng.), etc. London: Henry J. Glaisher, medical publisher, 57 Wigmore Street, Cavendish Square, W.

With all that is being said and written, some day—and let it be soon—we shall be able to determine the safe anesthetic for each individual case. Now that the anesthetist has voluntarily

elevated himself and his calling to an equal plane with the surgeon and his calling, and feels equal responsibilities with the surgeon, we may expect better results than we have yet seen. There is no doubt the work is better done than it was even five years ago, and a study of this little pamphlet may help some erring soul, who still uses chloroform indiscriminately, to come into the fold of a wider knowledge and give up some of his foolhardy practices. S.

A Manual of Acute Poisoning. Giving classification, varieties, and individual substances usually met with in emergency poisoning, with special symptoms, simple tests, chemical antidotes, physiologic antagonists, and treatments. Together with methods for use in first aid to the injured. By JOHN W. WAINWRIGHT, M.D., member of the American and New York State Medical Associations, the American Chemical Society, etc. New York: C. R. Pelton. 1905.

This brochure may find a useful place as an aid to the practitioner in some cases of acute poisoning, but has very little to recommend itself as a first aid to the injured. A. J. H.

Lea's Series of Medical Epitomes.

Alling and Griffin's Diseases of the Eye and Ear. A Manual for Students and Physicians. By ARTHUR N. ALLING, M.D., Clinical Professor of Ophthalmology in Yale University, and OVIDUS ARTHUR GRIFFIN, B.S., M.D., late Demonstrator of Ophthalmology and Otology, University of Michigan, and Oculist and Aurist, University Hospital, Ann Arbor, Michigan. In one 12mo volume of 263 pages, with 83 illustrations. Philadelphia and New York: Lea Brothers & Co., Publishers. Cloth, $1.00 net. 1905.

For quizzing purposes, the questions are put at the end of each section; otherwise this is much like the familiar quiz compend. It is well printed, well illustrated, and the matter trustworthy as far as it goes.

PAMPHLETS RECEIVED.

Treasury Department, Public Health and Marine-Hospital Service of the United States. Walter Wyman, Surgeon-General Hygienic Laboratory. Bulletin No. 21. April, 1905.

"The Immunity Unit for Standardizing Diphtheria Antitoxin." Based on Ehrlich's Normal Serum. Official standard prepared under the Act approved July 1st, 1902. By M. J. Rosenau, Director of the Hygienic Laboratory. Washington: Government Printing Office. 1905.

The Canadian Journal of Medicine and Surgery

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Original Contributions.

SOME NEW CONCEPTIONS OF THE LIVING CELL; ITS CHEMICAL STRUCTURE AND ITS FUNCTIONS.*

BY VICTOR C. VAUGHAN, M.D.,
Dean of Medical Department, University of Michigan.

Mr. Chancellor, Members of the Faculty, and Students,—When I received from my friend, your worthy Dean, an invitation to address you on this occasion, I delayed my reply for some days, during which I seriously debated the question with myself. On the one hand, the memory of previous delightful visits to you and the anticipation of again being with you urged me to accept; while the consciousness that I was not prepared with an address suitable to the occasion, admonished me that the proper thing to do was to decline. However, when I recalled the indulgence with which you had received my former efforts, the decision was reached, and I now have to offer you my best, fully conscious that it is not good enough, and that you will again have opportunity to exercise your charity.

Something more than fifteen years have passed since I had the honor of being the guest of the University of Toronto, and I wish to say that it is with great pleasure that I have to-day seen the great advance that has been made by this noble institution during that time. I first came here to rejoice with my friend, Prof. Ramsay Wright, on the completion of his biological laboratory, and it is a gratification now to see that this laboratory has more than fulfilled the promises made at that time. The research work of its eminent director, of Prof. McCallum, and others,

*Opening Address before the Medical Department, University of Toronto, Oct. 4, 1905.

have carried the name of the University of Toronto around the world. I have had great pleasure in going through his new building with Prof. Ellis, and in recognizing that a chemist, whatever may be the fate of prophets, is not without honor in his own country.

I also rejoice in your splendid new Medical Building, and I envy the freshman of to-day, who comes filled with the earnest intention to do his work well, and who, under these favorable conditions, in the well-equipped modern laboratories, with such able masters to direct, begins the study of the beneficent science of medicine. I was greatly rejoiced on reading in the papers this morning of the munificent gifts that have been made for the new university hospital. Surely the people of Toronto are both wise and generous. He who aids in building a hospital, where human suffering may be relieved, is a practical Christian, whatever his theological dogma may be. We know not whence we came, nor can we name the country to which we journey, but we do know that the burdens placed upon the shoulders of those who travel along life's highway are not equally distributed, and he who helps his fellow-man who is growing faint serves his God. There is an old legend concerning the origin of the medical profession, which I may, I hope, be permitted to repeat. It runs thus: In the olden days when the world was yet young, a young Hindoo prince, who had all that the world could give, entered a temple and, prostrating himself before the image of Buddha, besought his god to instruct him in the ways of righteousness. His prayer ended, he felt upon his shoulder a hand as light as that of a child, and a voice as sweet as that of an angel asked, "Wouldst thou most acceptably serve thy god? If this be thy desire, go forth and serve thy fellow-men," and the prince went forth, the first physician to walk among men.

My visit is not without its tinge of sadness. I miss several faces that were familiar to this campus fifteen years ago. Of two of these I must be permitted to say a few words. There was a sweet-mannered man, gentle in voice and kind even in reprimand, an eminent ethnologist, an able historian, whose memory has always been to me a charming recollection. Such a man was Sir Daniel Wilson. The other was a professional brother, whose life was a help to those of his own generation and an inspiration to the young. Such a man was the late Dr. Graham, of this city and university.

I have decided to briefly discuss "Some New Conceptions of the Living Cell: Its Chemical Structure and Its Functions." No one can question the importance of this subject, involving, as it does, biological problems, which lie at the foundation of all our conceptions and theories concerning cellular life and cellular activity.

To start *ab initio*, the cell is made up of matter, and the newer views on matter must be taken into consideration in formulating a conception of the cell. When matter becomes endowed with life it does not cease to be matter; it does not lose its inherent properties; it is not released from the laws that govern its structure, its attractions, and its motions. In studying the organized cell of living things, whether vegetable or animal, it should always be borne in mind that it is material in composition and subject to the fundamental laws that govern matter, and possessed of those properties essential to matter. In order that this point, so essential to a proper understanding of the subject, should be thoroughly appreciated, it may be best to recall some of the properties of matter as taught by the most advanced science of the day.

Tait says: "Matter is that which can be perceived by the senses, or is that which can be acted upon by or can exert force." Since force is the result of motion, we may say that anything and everything that moves or can be moved, or whose position in space may be changed, is matter. There are many forms of matter that cannot be seen or felt, and can be recognized only by their motions.

Matter is indestructible; it may be successively solid, liquid and gas, but in undergoing these changes it neither gains nor loses. It has always been, and it always will be. It is without beginning and will be without end. Matter consists of infinitely small particles, called atoms. According to the computation of Lord Kelvin, the diameter of an atom is not greater than 1-50,000,000 of an inch; however, all atoms are not of the same size or weight. When like atoms combine they form chemical elements, of which about seventy are known. The hydrogen atom is the lightest of all known elements, and it therefore is taken as the base or standard in the determination of atomic weights. When unlike atoms combine, chemical compounds are formed, and the number of these is beyond computation. It was supposed, until the discovery and study of radium, that one chemical element is never converted into another, and consequently that the number of kinds of atoms is fixed and unchangeable. However, it has been found that the α-rays of radium consist of most minute particles, which, when confined in glass, condense and form another element, helium. With this demonstration of the formation of one element from another it is within the range of sanity to suppose that all the elements have been developed from a primordial ancestor, probably from the universal ether which pervades all space. Nothing has been created; everything has grown. Even silver, iron, and other metals came into existence by being cast off from some common ancestral element. The atomic weight of radium is 225 and that of helium 2.02.

It would seem from this that an atom of the former breaks up into about 100 atoms of the latter, and in this way a new element is born, although in this case it is probable that the mother atom is split into two or more kinds. It will be seen from this that even atoms may be split up. Indeed, there are reasons for believing that the hydrogen atom consists of a nuclear ion about which some 700 particles or electrons revolve, and an atom of mercury is believed to consist of not less than 100,000 electrons. Atoms and electrons are in constant motion, and so small are they that the distances between them may be relatively as great as those between the planets of the solar system. The living cell is composed of molecules, made up of atoms, composed of electrons that are in constant and systematic motion, and may be compared to a group of stars with attendant suns, each of which is surrounded by its own planets. A molecule of albumin is of like composition.

Another property of matter is that it is gravitative. Every particle of matter attracts every other particle. When this attraction is manifest between masses it is called gravitation; between molecules, it is called cohesion or adhesion, as the molecules held together are alike or unlike; between atoms it is known as chemical affinity or chemism.

Still another property of matter is inertia, by which term we indicate the inability of matter to change either its rate or direction of motion without being acted upon by other matter. It is of great importance that this property of matter be held in mind in the study of cellular chemistry, and the proper mental picture of a cell molecule represents each of the atoms in the molecule, and each electron in each atom moving each about its centre and each at a definite rate. If such a cell molecule could be cut off permanently from the disturbing influence of other matter, its atoms and electrons would continue the same motions, unchanged in direction or rate, throughout eternity, but, as we shall later see, it would be impossible for living matter to continue to live apart from other matter. Within the living cell molecule change in number, kind, and arrangement of atoms is constant; and the direction and rate of the motion of the atoms are also susceptible to the influence of other matter and are of constant occurrence. Whole groups of atoms are physiologically being dropped from the cellular molecule and being replaced by other groups split off from the pabulum upon which the cell feeds. In this way the cell renews itself and keeps itself supplied with energy.

Some of the most noted physicists are inclined to the belief that matter is made up of electric charges, but recognize that this is not a demonstrated fact as yet, and speak with caution. Lodge says: "There *may* possibly be two different kinds of inertia,

which exactly simulate each other, one electrical and the other material: and those who hold this as a reasonable possibility are careful to speak of electrons as 'corpuscles,' meaning charged particles of matter of extremely small size, much smaller than an atom, consisting of a definite electric charge and an unknown material nucleus; which nucleus, as they recognize, but have not yet finally proved, may quite possibly be zero."

The only essential and constant difference between living and non-living matter is that within the molecules of the former there is constant metabolism, while in the latter no such process occurs. We are to conceive of the living molecule as made up of numerous atoms and each atom surrounded by its electrons: atoms and electrons in ceaseless motion, and groups of atoms being constantly cast out of the molecule and replaced by new groups split off from matter outside the molecule. As soon as a molecule becomes the seat of assimilation and excretion, it is no longer dead, it lives. As a result of assimilation it acquires the property of building up its own tissue; then polymerization follows and reproduction in its simplest form begins. The one phenomenon always manifested by living matter, and never exhibited by non-living matter, is metabolism. Verworm says: "Vital motion, metabolism, is a complex motion very strongly characterizing the living organism: it consists in the continual self-decomposition of living substance, the giving off to the outside of the decomposition products, and, in return, the taking in from the outside of certain substances which give to the organism the material with which to regenerate itself and grow by the formation of similar groups of atoms, *i.e.*, by polymerization. This is characteristic of all living substance."

I have promised to give you some of the *new* conceptions of the living cell, and yet I must admit that Aristotle apparently recognized that metabolism is the one characteristic of living matter, for he says: "Life is the assemblage of the operations of nutrition, growth and destruction." Of course, this Greek philosopher did not know about cells, molecules, atoms and electrons what is to-day known, but it must be acknowledged that he had a clear conception of the most essential characteristics of living matter. Herbert Spencer has given three definitions of life, and either may be applied to the conception which I am trying to present to you. The first is: "Life is the co-ordination of atoms." The co-ordination between assimilation and excretion is certainly essential to life, and failure of this co-ordination leads to death. The second is probably the best definition of life ever given, and fits our conception perfectly. It is: "Life is the definite combination of heterogeneous changes, both simultaneous and successive, in correspondence with external coexistences and sequences." The third is practically the same as the second,

expressed in simpler terms, but in my opinion not so satisfactorily. It reads: "Life is the continuous adjustment of internal relations to external relations." Matter is alive when it feeds and excretes. Crystals grow and in a sense they multiply, but their growth is not intramolecular, it is by accretion. The living molecule not only absorbs, it assimilates. It chemically alters what it absorbs. The atomic groups taken into the living molecule enter into new combinations. The living molecule is not stable, but is highly labile. Its composition is never constant and it is never in a condition of equilibrium. There is a constant reaction between the living molecule and other molecules. Apart from other matter it could not exist. There is a constant interchange of atoms between it and other molecules. A condition best designated as latent life may exist without interchange of atoms between molecules. This is seen in spores, seeds and ova. Matter existing in this form may be awakened into activity by proper stimuli; active life begins with the interchange of atoms.

Why is there this constant atomic group interchange between the living molecule and outside matter? It is for the purpose of supplying the living molecule with energy. Allen has so ably expressed this fact that I make the following quotation: "The most prominent and perhaps most fundamental phenomenon of life is what may be described as the *energy traffic* or the function of *trading in energy*. The chief physical function of living matter seems to consist in absorbing energy, storing it in a higher potential state, and afterwards partially expending it in the kinetic or active form. We find in living matter a peculiar proneness to change its composition under the stimulus of slight changes in the energy-equilibrium between itself and its surroundings, energy being readily absorbed and readily dispersed. The absorption of energy coincides with deoxidation and the building of large molecules: conversely the dispersion of energy coincides with oxidation and the disruption of the large molecules. The building of these large molecules is always accomplished by slow steps: but when formed, the said molecules are very unstable, irritable, or in modern phrase, *labile*. They may break down by degrees in some instances; in others their structure may be so precarious as to collapse on the slightest disturbance."

"The lability of such a molecule may be compared to that of a house of cards, which can be taken to pieces card by card, or may collapse at once. But the word *lability* is applied, not only to *de*-structive, but also to *con*-structive instability. The molecules of living substance are prone to constructive as well as destructive changes; but, as in the house of cards, the constructive changes are the most gradual; and as the structure grows more complex, construction becomes more difficult, and collapse is more

imminent. It should be distinctly understood, however, that it is not the mere size of the molecules that makes them labile, but rather the manner in which they are linked together, and the amount of potential energy which is included in the molecule."

It is probable that in the absorption of energy by the living molecule oxygen is relieved from its combination with carbon or hydrogen and is attached to nitrogen, while in the liberation of energy the reverse takes place. Nitrogen and phosphorus, sometimes with iron and possibly manganese, seem to be, as it were, the master elements within the living molecule. It is by virtue of their chemism that groups are torn from extra-cellular matter, taken into the living molecule and assimilated by an atomic rearrangement; and furthermore, it is on account of the lability of the compound thus formed that potential energy is converted into kinetic and cell work is accomplished.

The question of the origin of life on this world has been ably discussed by eminent chemists, physicists and biologists. The cosmozoa theory proposed by Richter holds that cellular life has always existed, and has been transferred from one planet to another by meteors and cosmic dust. Richter says: "*Omne vivum ab aeternitate e cellula.*" Helmholtz and Lord Kelvin have pronounced this theory not unscientific, and the former makes the following statement: "Meteoric stones sometimes contain hydrocarbon compounds; the intrinsic light of the heads of comets shows a spectrum that is very similar to that of the incandescent electric light in gases containing hydrocarbon. But carbon is the characteristic element of this organic compound, of which living bodies are composed. Who can say whether these bodies that swarm everywhere through space do not spread also the germs of life whenever a new world has become capable of affording a dwelling-place to organic creatures? And this life we might, perhaps, have reason to regard as even allied to our own in germ, however various may be the forms in which it might adapt itself to the conditions of its new dwelling-place."

Preyer objects to the cosmozoa theory that it only sets the question back to, How did life originate in the universe? and Helmholtz says: "The true alternative is evident; organic life has either begun to exist at some one time, or has existed from eternity."

Pflüger's theory of the origin of life is the most scientific yet proposed. He argues that living proteid differs from dead proteid by the existence in the former of a cyanogen radicle. He says: "In the formation of cell substance, *i.e.*, of living proteid out of food proteid, a change of the latter takes place, the atoms of nitrogen going into a cyanogen-like relation with the atoms of carbon, probably with the absorption of considerable heat." Pflüger calls attention to the resemblances between cyanic acid

HCNO and living proteid. Both easily polymerise, the living proteid growing and the cyanic acid forming the polymeric cynamelid *HnCnNnOn*. Both yield urea on dissociation; both are liquid and transparent at low temperature, and both coagulate at higher temperature. Pflüger concludes that the beginning of life depended upon the formation of cyanogen, and then he reminds us that cyanogen and its compounds are produced only at incandescent heat. He summarizes as follows: "Accordingly, I would say that the first proteid to arise was living matter, endowed in all its radicles with the property of vigorously attracting similar constituents, adding them chemically to its molecule, and thus growing *ad infinitum*. According to this idea, living proteid does not need to have a constant molecular weight; it is a huge molecule undergoing constant, never-ending formation and constant decomposition, and probably behaves towards the living chemical molecules as the sun behaves towards small meteors."*

It will be seen that according to Pflüger life is a molecular phenomenon, and it seems to be that this must be true. Non-living matter, whether it be inorganic or organic, is relatively stable intramolecularly, while living matter is never stable within its molecule, which is constantly casting out and as constantly absorbing atomic groups. It assimilates and it excretes, and these phenomena are its essentials. Deprive the living molecule of food, and it dies; prevent its excretion, and it dies. Reaction between the living molecule and outside matter is constant, and is necessary to the continuance of life. The fact that life resides in the molecule is, as I have stated, taught in Pflüger's theory. It is also recognized by Allen, who, in speaking of living proteid, says: "It is a molecule of enormous size, and (so far as the dynamic elements are concerned) its various groups are linked together by many nitrogen atoms, but not in a chain. It is not a proteid, a cyan compound, an amid, an amine, nor an alkaloid, but something that can yield some of them during life and others at its death. Death consists in the relaxation of the strained relationship of the nitrogen to the rest of the molecule. When thus 'the silver cord is loosened,' the relaxed groups fall into a state of repose. Most of these groups are proteids in which the N is peripheral, triad and unoxidized, having yielded its O to some other element. If, however, such a proteid molecule be applied to a living cell, it can be linked on again by its N, which thus once more becomes central."

In his very interesting monograph on the Biogen Hypothesis, Verworm objects to saying that a molecule lives. He states that it is illogical. "A living thing is only that which demonstrates

*The different theories of the orgin of life are ably discussed by Verworm in his General Physiology.

the phenomenon of life—something that changes itself. A molecule of a given compound, so long as it remains unchanged, cannot be said to be living." Then, in order not to speak of living molecules, he introduces the term "biogen molecule," instead of the living molecule. Surely this is a distinction without a difference. I certainly agree that a molecule of a germ compound, *so long as it remains unchanged,* cannot be said to be living, but the point is that living molecules do not remain unchanged. When life is latent, as it is in seeds and spores, the molecules cannot be said to be alive; but when placed under suitable conditions, then the change between atomic groups in the molecular and the external food substance begins, and life first manifests itself. However, it matters but little, I suppose, whether we speak of living molecules or biogen molecules.

That life resides within the molecule and that metabolic processes are intramolecular, are shown by numerous investigations, some of the most important of which may be briefly stated as follows:

1. As long ago as 1867 it was shown by Hermann, in his studies on the metabolism of isolated muscle, that the carbonic acid and lactic acid that are formed by muscular contraction result from the action of intramolecular or combined oxygen. This was demonstrated by the fact that when a muscle was freed from all its uncombined oxygen under an air pump and then caused to contract in an oxygen-free medium, it gives off carbonic and lactic acids. Contraction, a vital muscle phenomenon, is thus shown to result from intramolecular changes.

2. In 1875, Pflüger kept a frog at a temperature of a few degrees above zero in an atmosphere free from oxygen for twenty-five hours, and found that during that time the animal continued to give off carbonic acid. From this Pflüger concluded that the living content of the organism consists of proteid, which he designates "living proteid," in contradistinction to dead proteid, and that the carbonic acid gas results from the decomposition of a labile proteid molecule, the nitrogenous constituents of which are capable, with the help of the fats and carbohydrates of the food, to regenerate "the living proteid molecule."

3. It has been shown by recent research in my own laboratory that both the toxin and the carbohydrate of the cell of the colon bacillus are held in chemical combination with other constituents of the cell. This micro-organism will grow in a medium which contains organic nitrogen only, as amino compound, and with this nitrogen and inorganic salts as its sole food, it builds up by synthetical process a complex glyco-nucleo-proteid, forming a large molecule which contains as atomic groups, pentose, nuclein bases, amino and diamino compounds. These constituents are held chemically in the cell. They cannot be washed

out by physical solvents, and can be isolated only by chemically breaking down the cell molecule.

Besides the above-mentioned experimental data showing that life manifests itself by intramolecular reaction, the following general considerations indicate the same thing:

(*a*) In taking its food the cell, whether it be vegetable or animal, whether it be that of a unicellular or that of a multicellular organism, manifests a selective action which can be best explained—indeed, I might say, can only be explained—on the ground that it is due to chemical affinity. Mass and molecular attractions are not specific, while atomic attraction, or chemical affinity, as it is usually designated, is specific, or at least selective. This fact, as is well known, is the basis of the side chain theory of Ehrlich, who, upon this principle, explains the nutrition of cells, the action of many therapeutical agents and the production and action of antitoxins. It is well known that certain poisons have a selective action for certain tissues, and this means that the chemical affinity between the poison and the constituents of certain cells is greater than that between this poison and other cells. If pharmacology and toxicology ever become exact sciences it will be, most probably, through investigations directed along this line.

(*b*) The fact that the secretions of cells are specific is a strong argument for the theory that action on the pabulum upon which they feed is intramolecular. The liver cells produce bile pigments and acids, each of the digestive fluids elaborates its specific products, the specific secretions of the adrenals and the thyroid gland have been studied and are now largely and successfully employed therapeutically. And still all these organs are supplied with the same blood and lymph. Certainly the only possible explanation for these well-established facts is that of a chemical reaction, or an intramolecular reaction, between the cells and the constituents of the substances with which they are brought into contact.

While other arguments might be adduced to show that metabolic processes, the only phenomena with which we are acquainted, that are characteristic of all living matter and which do not occur in dead matter, are due to intramolecular reactions, it seems to me that those already given are sufficient to establish my thesis, *i.e.*, life is molecular.

If I have made good my contention so far, it follows that life begins with the first molecule that is endowed with the capability of growth and reproduction. The life of such a molecule would depend upon its continued reaction with matter outside of itself, or, in other words, it must feed; and reproduction in its simplest form would depend upon polymerization. In this way the wonderful experiments of Loeb upon the artificial fertilization of certain ova

are easily explained. The ovum is not alive; it possesses only latent life, and when acted upon by certain stimuli it begins active life. This stimulus may be a spermatozoön or some inorganic salt in a certain definite strength of solution.

If life be molecular, it is possible that its lowest manifestations are without form. They may be infinitely small, and it is not beyond the range of possibility that they may exist as solids, liquids, or gases.

Spontaneous generation has never been proved to be impossible; indeed, it will not be easy to disprove spontaneous generation. I agree with Naegele in the following statement: "One fact—that in organisms inorganic substance becomes organic substance, and that the organic returns completely to the inorganic—is sufficient to enable us to deduce by means of the law of causation the spontaneous origin of organic nature from inorganic. . . . If in the physical world all things stand in causal connection with one another, if all phenomena proceed along natural paths, then organisms, which build themselves up from and finally disintegrate into the substances of which inorganic nature consists, must have originated primitively from inorganic compounds. To deny spontaneous generation is to proclaim a miracle."

The experiments of Tindall, Pasteur, and others, which were supposed to completely and forever overthrow the doctrine of spontaneous generation, in my humble opinion, did no such thing. They simply demonstrated that bacteria do not spontaneously generate in meat infusions and similar media, nothing more. Now, it seems to me that bacteria, which we frequently call the lowest forms of life, are by no means certainly entitled to this distinction. They may be the lowest forms with which we are acquainted, the smallest living things that we can see with our best microscopes. But chemically they are composed of extremely complex molecules, as has been shown by recent research in my laboratory. As I have already stated, the cell of the colon bacillus consists of a highly complex glyco-nucleo-proteid, yielding, on chemical disintegration, a carbohydrate, pentose, the nuclein bases, the monamino and diamino bodies, as tyrosin, leucin, lysin and arginin. In other words, chemically the colon molecule is quite as complex as that of the lower grade tissues in man. Now, if there has been a chemical, as well as a morphological, evolution, the colon bacillus is not the lowest form of life; indeed, it must be far removed from the first molecule that manifested metabolic activity.

The following quotation from Nussbaum, as given by Loeb, shows that the biologist recognizes that the cell is not the unit of life: "The cell is not the ultimate physiologic unit, even though it must remain such for the morphologist. We are, how-

ever, not able to tell how far the divisibility of a cell goes, and how we can determine the limit theoretically. Yet for the present it will be well not to apply to living matter the conceptions of atoms and molecules, which are well defined in physical chemistry. The notion, micella, introduced by Naegele, might also lead to difficulties, as the properties of living matter are based upon both nuclein and protoplasm. . . . The cell, consequently, represents a multiple of individuals."

Pflüger has shown that the egg, which has been thought to be a unit, can give rise to many individuals, and Loeb states that his own experiments, as well as those of Driesch, confirm this finding.

It is highly probable that the lowest forms of life cannot feed upon proteids. This is true of the yeast cell. These cells grow rapidly when placed in a solution of sugar and nitrates, but proteids must be broken up by putrefactive bacteria before the yeast germs can feed upon them. Indeed, many of the cells of the body of man cannot feed upon proteids, which must be split up by the digestive enzymes into much smaller and much simpler groups before the cell molecules can assimilate them. Even the carbohydrate, starch, must be hydrated before it can become a source of energy in muscle. Proteid solutions injected into the blood of man are poisonous, but the same substance, after being properly split up, is an essential cell food. There are weighty reasons for believing that proteid is not produced by the lowest forms of life. However, as proteid, or cellular life, is the only form of life that we know, it would be quite useless to attempt to go further along this line.

I have probably said enough concerning spontaneous generation to bring down upon myself the anathemas of the orthodox in science, and since my opinion on this subject does not have any essential relation to the important thesis of this paper, I will leave this point without further discussion.

If the characteristic phenomena of life are due to intramolecular reactions, we must conceive the living cell, whether it belong high or low in the scale of development, as consisting in its essential or vital part of a chemical compound made up of complex molecules, composed of atoms, each surrounded by its electrons, all in motion, and with a constant absorption of atomic groups from other molecules, and with a like constant casting off of atomic groups.

This molecule feeds by splitting off such groups as it may need from the pabulum within its reach, or it may absorb whole molecules, at the same time rearranging the atoms and making them a part of itself.

When, in ordinary physiological function, a portion of this molecule, which we may designate its chemical nucleus, remains

undisturbed and regenerates the whole, supplying its waste by the absorption of new matter.

Cellular assimilation consists in properly locating the recently acquired groups within the molecule.

Certain cell molecules, under proper stimuli, rearrange their atomic grouping, polymerise, and thus multiply. This multiplication may be physiological or pathological. Rapid proliferation may tend to inability to function or to react with the food supply, and consequently destroy the molecule or lead to the death of the cell.

With this conception of a living cell, its secretions consist of the atomic groups cast out as a result of its reactions with external matter, and as the cells of different organs are unlike in their chemical composition, it follows that the secretions are specific. Outside the body hemoglobin breaks up, or may be broken up, chemically, into hematin and globulin. In this case the colored split product contains the iron. But the liver cells produce from hemoglobin bilirubin and an iron containing proteid. In this reaction the line of cleavage is quite different from that followed in the ordinary decomposition of hemoglobin. The secretions of some cells enter into a more or less energetic reaction with certain extra-cellular compounds with which they come in contact. This is true of the digestive enzymes. Other secretions apparently are made for the purpose of reacting with or at least affecting the reactions of the molecules of other cells. This seems to be true of some at least of the so-called internal secretions, such as those of the thyroid and adrenals.

A most important group of cellular secretions is made up of the ferments or enzymes. Without going into the history of the theories that have been advanced concerning the nature of these bodies, it seems to me that we are no longer justified in speaking of "organized and unorganized" ferments. All the ferments are cellular products. The work of Buchner on the ferment of the yeast plant seems to be positively convincing on this point. Oppenheimer has defined a ferment in a manner that seems to me to be quite in accord with the latest and best experimental investigation. His definition is as follows: "A ferment is a catalytically-acting substance which is produced by living cells, to which it is more or less firmly bound, whilst its action is not associated with the vital processes of the cells (which produce it); ferments are capable of inaugurating chemical processes which take place spontaneously (without the presence of the ferments), but proceed much more slowly. In this process the ferment, itself, remains unchanged. Ferment action is specific, *i.e.*, each ferment manifests its activity only on substances of certain structural and stereochemical arrangement."

I am conscious that my translation of this definition is not altogether satisfactory, and in order to give a more exact interpretation of it, as I understand it, I offer the following explanatory statements:

1. Every ferment is a cellular product; it is a cellular secretion; a substance of definite chemical composition formed by the rearrangement of the atomic groups within the cellular molecule.

2. The action of the ferment, while it is determined by the cell which produces it, is not concerned in the "energy traffic" constantly going on between the molecules of the cell which produced it and other molecules external to this cell. With our present limited knowledge of the chemistry of the cell molecule it is impossible, in many cases at least, to distinguish between the chemical reactions resulting from cell metabolism and those due to ferments. I am inclined to the opinion that more exact knowledge will show that the autolytic changes that take place in many cells after death, and which have furnished the theme of so many papers recently, will be found not to be due to ferments at all, but to the cessation of metabolic reaction.

3. The function of a ferment is to hasten chemical reactions which take place, but much more slowly, without the presence of the ferment. It seems to me that a clear conception of this point gives one a key to the action of ferments in general. I have, in the first part of this paper, called attention to the fact that inertia is a universal property of matter; that the direction and rate of movement in matter can not be altered spontaneously. A ferment is a substance which by its presence changes the *tempo* of chemical reaction. I am fully aware that this does not explain *why* the ferment acts by its presence, but it is worth much to have a conception of *how* it acts, provided, of course, that this conception be correct. Furthermore, it must be admitted that the *modus operandi* of ferments is still beyond our ken. Some think that certain atoms or atomic groups are detached from one of the substances, combine with the ferment, and then are passed on to the other substance. On this supposition the ferment does enter into the reaction, but is constantly regenerated. Others hold that the ferment combines with the fermentable substance, making its molecule so labile that it falls to pieces, and that in the dissociation the ferment is again set free. There are weighty objections to either of these theories, but time will not permit me to state them in this paper, which is intended to be suggestive rather than exhaustive.

THE PREVENTION OF INSANITY.*

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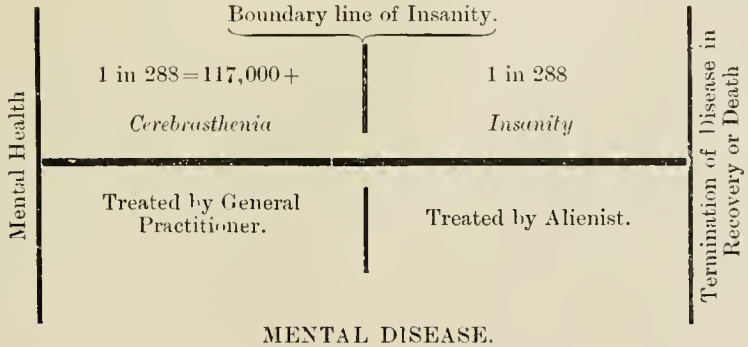
Mr. Chairman and Gentlemen.—The prevention of insanity is so important a question at the present time, when insanity is so rapidly on the increase, that any contribution to its study, however slight, must meet with the consideration of the entire medical profession.

In a recent paper by Dr. Robert Jones, Superintendent of the London County Asylum of Claybury, he states that on January 1st, 1904, 1 in every 288 of the entire population of England and Wales were certified as insane. Startling as these figures are it is not to them but to a subsequent remark in his paper that I would like to direct your attention, viz., that, "We also know that possibly the same number are on the borderland of certification and are being daily precipitated into the asylums." This means that 1 in 288, or a total of 117,199 persons are daily crossing the boundary line and contributing to increase the number of insane in the above-mentioned countries.



MENTAL DISEASE.

How are these 117,000 persons who are on the borderland being treated? Clearly not by alienists, since they have not yet crossed the boundary line and been certified to as insane. Hence, the only treatment they can receive, if they receive any, must be by the general practitioner. But what preparation has the general practitioner received in order to treat these patients? The answer to this is, I believe, the crux of the whole question.

*Read before the first meeting of the Medical Superintendents of the Asylums of Ontario, Sept. 20th, 1905.

As is well known by all examiners in medicine, the graduating student has a most imperfect knowledge of neurasthenia and insanity, a defect which is the more striking when compared to his present knowledge of disease of any other organ than the brain; as, for example, that of the heart. Why should this be so? The medical superintendents of asylums have, for many years, done all in their power to disseminate a knowledge of insanity. One reason is the belief on the part of the student that there is a chasm of greater or less dimensions between the general practice of medicine and the treatment of insanity, and the impression that the latter must always be treated by an alienist and in an asylum; hence, no practical benefit will be derived from its study. Another is that there is a lack of realization on the part of the student that insanity is "brain disease with mental symptoms." Again, the situation of asylums is so frequently a long distance from the scene of the student's daily work, and the immense number of patients and the intricate classification of insanity tend rather, during his occasional visits to the asylum, to confuse his ideas and leave him with an ill-defined knowledge of the subject. But how about his instruction in those functional nervous troubles which often, for a long period, precede insanity, of which Krafft-Ebing (whose work as a neurologist lent a great aid to his success as an alienist) says in his last work, "Seldom does insanity come like a thunderbolt from a clear sky, much oftener its development requires months and even years"? Naturally the student has no such instruction in the asylum, since he can see there only cases in which the boundary line of insanity has been passed. As I have already said, his instruction about them in the general hospitals is at best but scanty, owing to the lack of clinical subjects. From what has been said I hope I have made clear that the first step in the prevention of insanity must be taken by providing better facilities for clinical instruction in functional nervous diseases, for the medical student—the future general practitioner—*under whose care such cases must inevitably first come.*

If lack of education is really the cause, the remedy at once becomes apparent, viz., to increase the facilities for the instruction and study of these diseases. How is this to be accomplished? For some years past three suggestions have been before the medical world: (1) To convert our asylums into hospitals in the strict sense of the word, admitting cases of neurasthenia without certificate; (2) to establish psychopathic hospitals as separate institutions, and (3) to establish in connection with the general hospitals one or more wards, or a separate pavilion, in which these patients could be received. In regard to the first, much as I should like to see in every asylum a well-equipped hospital for

acute cases, and, firmly as I believe that the worthy efforts of alienists will certainly be rewarded in time, I do not think this solution offers most advantages for the initial step. How would such a hospital be filled with such cases as we are discussing? By voluntary patients, without certification? One can at once see how inadequate would be the supply, if only on account of the prejudice which now exists in regard to asylums. By cases from the general profession? But how is the general profession to recognize the urgent need of treatment in these cases without further opportunity for observation than has been given it in the past? Or, granted that these hospitals were filled with a sufficient number of these neurasthenic patients, would not the distance at which asylums are so often placed form a tremendous barrier to the instruction of the average student, whose time is already so fully occupied? Moreover, that this distance has to be travelled to see only one class of disease is also an important consideration.

In regard to the establishment of psychopathic hospitals I do not think the suggestion is at present the most useful or practicable one for this country, as the initial expense alone would delay their construction for an indefinite number of years.

It is rather to the third suggestion above mentioned that I think we must turn for an immediate and practical solution of the difficulty, a solution which I advocated at the annual meeting of the Ontario Medical Association in June, 1904, viz., the establishment of wards or a separate pavilion in connection with general hospitals, and, especially at first, in connection with those general hospitals where clinical instruction is constantly given. Has this plan been tried, and with what success?

In a recent paper on "Wards in General Hospitals for Acute Nervous and Mental Diseases," I endeavored to show the results obtained by this means of treatment. In Germany it has been in operation more than thirty years, with most gratifying results, both in regard to clinical instruction and the prevention of insanity. In Great Britain and the United States, while the plan has not been so long in operation, the results are equally gratifying, the proportion of those discharged, recovered or relieved, being over 60 per cent. Two weeks ago I visited the General Hospital of St. Francis at Pittsburgh, Pa., on the kind invitation of Dr. Theodore Diller. Here I learned that cases of mental disease were first received about fifteen years ago in a small wooden building which served as an annex to the hospital. This branch of the work steadily increased, until the present brick pavilion, containing about one hundred beds, was constructed three years ago. I was also most interested to see among the general medical wards of the hospital certain wards in which screens were placed outside

the windows, in which, Dr. Diller informed me, cases of doubtful diagnosis could be observed until such time as the course of the disease made this quite clear. Dr. Diller further assured me that the treatment of these acute nervous and mental diseases in this general hospital had, after fifteen years' experience, proved entirely satisfactory. The reports of Pavilion F., of the Albany General Hospital, in which all forms of mental and nervous disease are received, are highly gratifying, as may be judged by a letter to Dr. Mosher, the physician in charge, from Arnold E. Smith, of the St. Lawrence State Hospital, on receipt of the first annual report. He writes: "I desire to congratulate you on the results of the first year of Pavilion F. How ideas grow and develop! How slowly and yet how surely the progress! One hundred and seventy-four mentally ill people have come *voluntarily* to the Albany Hospital for help which otherwise, as a rule, except for your Pavilion F., they would have been unable to obtain without being officially declared 'insane;' and you have demonstrated that over one hundred of the number did not deserve that mark. If nothing more, this is enough to justify your project," etc. I will not detain you with further details, but I hope sufficient has been said to demonstrate that if we are to maintain a standard in this branch of medicine in Ontario equal to what exists in other countries, such wards in general hospitals are an absolute necessity.

With the establishment of these wards in general hospitals there would result at least the following:

(1) The prevention of insanity in at least 50 per cent. of the cases admitted sufficiently early, thus affording relief to the already overcrowded asylums.

(2) Better clinical instruction to the medical student. I would like here to quote what that excellent authority, Sir John Batty Tuke, says in regard to the value of such wards for clinical instruction, viz., "That clinical instruction in an asylum is all very well, but it is not worth argument, to show the infinitely greater advantage that would accrue to all students, were such wards open to them in general hospitals." Here the student could be shown these cases in his daily routine of work, and be able to study these diseases of the brain just as he studies in a neighboring ward diseases of the lungs or of the heart.

(3) A better knowledge of these diseases would result in the whole profession recognizing the necessity, for example, of hospitalization of asylums, and instead of the scanty number of specialists who are now endeavoring to bring about this good work, there would be a solid phalanx formed by the profession, to the requests of which the government would be obliged to accede without delay.

(4) To the nursing staff of a general hospital, instruction in

such wards would be a great boon, since, frequent as these cases are in private practice, but little opportunity to learn the art of nursing them is afforded in a general hospital.

(5) By admitting patients into the wards of a general hospital on the lines suggested above, in Germany, any acute case of alleged insanity would at once be admitted without a certificate, on precisely the same conditions as though the patient were suffering from any other disease than that of the brain, and by this means the cruelty and injustice of taking these patients to a jail would be abolished. Under these conditions recourse to early treatment would be sought, since the prejudice against asylum treatment for a relative would be removed, and much better results would necessarily follow. The stigma, in the minds of the laity, of having been treated in an asylum, would also be obviated. Further, the treatment of these patients in a general hospital, by the same methods as all other patients are treated (due allowance being made for the form of their disease), would gradually lead to a more rational view of insanity in the minds of the masses, and thus gradually overcome the prejudice against asylums.

(6) A large proportion of suicides would be prevented.

From an economic point of view alone, however, the prevention of insanity merits the careful attention of the State. Since the maintenance of the insane poor must of necessity devolve upon the State, the cost of even a single individual during the long period his disease may continue (sometimes more than fifty years), would suffice to build such wards in connection with one general hospital, without mentioning the benefit to the community which might have resulted from the intellect or the skill of the individual, had insanity been prevented in this single instance.

In conclusion, I may add that the Trustees of the Toronto General Hospital, after fully discussing the subject, at once offered the use of the residence occupied by the ex-Medical Superintendent, to furnish the same and provide the necessary nurses to carry on the work, provided the Government would grant a sufficient sum of money to make the necessary alterations in the building and properly equip it for the purpose in view. While the construction of the building is such that certain objections will have to be encountered, especially in regard to the nature of some of the cases admitted, there can be no doubt that, should the Government grant the necessary funds to meet the generous offer of the Trustees of the Toronto General Hospital, a modest beginning would at once be made, which would be sufficient to demonstrate that equally good results can be obtained in Canada, as in other countries, under similar circumstances, and would, ere long, lead to the construction of a special pavilion, devoted to the study and treatment of these maladies.

The accomplishment of this good work, unequalled in importance by any other which the Government has to consider, would not only reflect the greatest credit on the State, but add another laurel to the profession which has ever made the alleviation of suffering in the poor its first duty.

The above diagram seeks to represent the entire course of mental disease, as a single entity, from health, on the one side, to its termination in recovery or death, on the other, just as all diseases are being studied; and also to show that insanity is a disease which does not begin when this term is applied to it, but that it is really only an advanced stage of a certain form of neurasthenia. This diagram applies, of course, only to the acute insanities (the psychoneuroses of Krafft-Ebing).

Selections, Abstracts, Etc.

PRESIDENT ROOSEVELT ON THE PHYSICIAN.

President Roosevelt's address before the Associated Physicians of Long Island will bear more detailed comment than we gave to it last week. What he said of the medical profession is a decided tribute. He said that "the condition precedent on success in digging the Panama canal is having the proper type of medical work as a preliminary. He spoke of the physician's character in a most appreciative way. He said, among other things: "The doctor has, on the one hand, to be the most thoroughly educated man in applied science that there is in the country, and on the other hand the doctor gradually becomes the closest friend to more different people than would be possible in any other profession." At considerable length, the President showed that he appreciates the duties, difficulties and opportunities of the scientific physician.

Referring to the task at Panama, he indicated the dependence that must be placed on medical science to make the conditions of work such that the engineers can accomplish their task. We echo his confidence that the conditions hostile to health are going to be controlled by the sanitary authorities. The alarmist stories brought by a few panic-stricken individuals must be received at their true value. The fact is that the rainy season is never a favorable one for sanitary work in the tropics, and, further, we are still suffering to some extent, it is probable, from the dilatory and red tape methods which were denounced by Dr. Reed. If Dr. Gorgas could have had full swing from the first we may safely assume that matters would be better now, as we feel sure they will be soon. There will be difficulty, especially on the Atlantic side of the isthmus, in controlling the mosquito pest, but what has been done in other tropical countries, the confederated Malay states, for example, can be accomplished even there. We feel satisfied that the sanitary authorities on the isthmus will do their full duty if untrammelled, and that the health results will be commensurate.

In expressing his confidence in the ultimate results at Panama, the President recalled the splendid example of Cuba, and paid a well-earned tribute to the effective work there of Leonard Wood. In this connection his words of resentment at the criticism to which Wood has been subjected were keen.

"There has been no meaner and more unpleasant manifestation in all our public history than the feelings of envy and jealousy manifested toward Wood." And then came a sentence pregnant with sad thought for the men of medicine—"and the foul assaults and attacks made on him, gentlemen, were largely because they grudged the fact that this admirable military officer should have been a doctor." It is to be feared that there is herein too much truth. Why a physician should be grudged military or civil success it is not easy to reason out, but the fact seems real. Perhaps it is a popular inheritance from past ages, when medicine was not a science and when physicians were enmeshed in superstition. To what else can such prejudice be laid? Certainly the educated medical man of the present affords no excuse for such a view of his efforts. However, we need not heed it. Constantly, as we improve ourselves in education and fitness, our position is advancing. The physician of the future again will be, in a rational way, the arbiter of men's fortunes. The very words of the President are a step forward, and we should be grateful to him, not for seeing our plight, but for speaking loudly his dissent from the too-prevalent anti-medical prejudice. Surely, though slowly, we are moving forward, and for every aid are grateful. Not least among our friends and appreciators stands Theodore Roosevelt.—*Edit. Jour. of A. M. A.*

TREATMENT OF SLEEPLESSNESS AND PAIN.*

Sir Lauder Brunton opened a discussion on the treatment of sleeplessness and pain at the recent meeting of the Section of Medicine, British Medical Association. He referred first to the physiology of the living cell and of the living nerve cell. In sleep there was probably a break in the continuity between the cerebral cells and those by which the organism was brought into relation with the outer world, situated possibly in the basal ganglia. This interruption was probably due to the accumulation of waste products in their vicinity. The influence of the circulation on sleep was discussed, both in relation to contraction of the arteries and to excessive cardiac action. Where rigid arteries were a cause of insomnia the use of massage and the administration of potassium iodide were of especial value; if the insomnia were due to high arterial tension, then aperients like blue-pill and magnesium sulphate were of special use, and this might be combined with the administration of nitrites, phenacetin, and other substances with like effect; if cold feet were the cause, cold affu-

*Discussion at the annual meeting of the British Medical Association.—*Brit. Med. Jour.*, July 29, 1905.

sion followed by dry rubbing was advisable; if dryness of the skin, warm sponging; if indigestion, especially with acidity, the use of alkalies internally and such diluents as warm water. In such cases of indigestion and in others a little moderately warm food was the best remedy; and if the insomnia were due to acceleration of the heart's action by fever, the wet-pack or cold sponging was indicated. The action of such substances as tea and coffee in relation to sleep was discussed, and of alcohol in helping the linking on of other substances to the nerve cell; thus urethane—an alcohol and urea—was valuable. Chloral, the depressing effect of which on the heart was usually a drawback, was of special use for gouty people whose blood pressure was high. The value of sulfonal, trional, and tetronal, the latter being probably the less useful, was discussed, also that of valerian as a sedative, that of opium both as a direct hypnotic and indirectly as an analgesic, and of the internal administration of alkalies. For periodic headaches he had found a combination of sodium salicylate and potassium bromide of great service.

Professor Cushny limited his remarks to the hypnotics. They might in large doses lower the bodily resistance to disease, but so did sleeplessness itself. The ideal hypnotic was yet to be found. The depressing action of chloral on the heart and tissues had been over-estimated in its degree and importance; a similar influence belonged to all the chlorine hypnotics, but chloral still remained the best of them. Of the sulphur hypnotics, sulfonal was uncertain in its action and caused tissue changes, as evidenced by hemato-porphyrinuria; sulfonal and trional, he believed, were the most dangerous of all now in use. Urethane was good, but it had to be used in very large quantities. Veronal acted with comparative certainty, in small doses, and without deleterious effects. It seemed to him to be the best of the non-chlorine hypnotics, and to rank with chloral before all the others. He considered that hyoscyamus and hyoscine should be used with caution; the racemic form of hyoscine seemed to be less liable to produce untoward effects, and was of equal hypnotic value. The active principle of cannabis indica, especially if combined with bromide, might prove of service. If acute pain were present, opium was usually required, but if it arose from the nervous system itself and not from acute inflammations, the antipyrine group might serve instead.

Sir William Broadbent emphasized the importance of identifying the cause of the sleeplessness before giving drugs. It was very important to be on the lookout for indigestion as a cause of sleeplessness; its influence was often largely mechanical, and a drink of water, by displacing a few cubic inches of gas, might be effective. For high arterial tension as a cause a calomel pill

was the best remedy; it often induced sleep long before acting on the bowels. He uttered a warning as to the establishment of drug habits, and considered that the depressing effect of chloral on the heart was especially evident in such lung conditions as emphysema and bronchitis.

Hale White believed that insomnia was sometimes dreamed by patients. He referred to the sleeplessness due to worry, to indigestion, to excessive exhaustion, and to the effect of previous acute febrile disease. Where the disease was incurable and of short duration, as in cancer, or self-limited, as in pneumonia, hypnotics and analgesics were indicated. Where it was incurable and prolonged, as in tabes, morphine should not be given. The usefulness of alcohol as a hypnotic he believed to be exaggerated: too much had to be taken to produce a depressing effect; a little warm food was preferable. Chloral was good, except in the presence of sickness; chloralamide especially good in heart disease; paraldehyde and hyoscine where there was delirium or mental aberration, and heroin where there was coughing.

W. Collier alluded to school pressure as a cause of insomnia.

A. Foxwell emphasized the importance of circulatory insomnia; if due to low blood pressure he gave a full dose of strychnine; he had found dormiol and veronal of value.

THE FIRST AUTOPSY IN MONTREAL.

In the description in "Hakluyt's Voyages" of the travels of Jacques Cartier, is found the following, which describes the earliest reported autopsy performed in this city. It took place in 1535, when the winter was passed in Hochelaga and many of the crew died of an epidemic disease.

"That day Philip Rougement, borne in Ambroise, died, being 22 yeeres olde, and because the sicknesse was to us unknowen, our Captaine caused him to be ripped to see if by any means possible we might know what it was, and so seeke meanes to save and preserve the rest of the company: He was found to have his heart white, but rotten, and more than a quart of red water about it; his liver was indifferent faire, but his lungs blacke and mortified, his blood was altogither shrunke about the heart, so that when he was opened great quantitie of rotten blood issued out from about his heart; his milt (spleen, Ed.) toward the back was somewhat perished, rough as if it had bene rubbed against a stone. Moreover, because one of his thighs was very blacke without, it was opened, but within it was whole and sound, that done, as well as we could, he was buried."—*Montreal Medical Journal.*

URIC-ACID DIATHESIS—REPORT OF A SUCCESSFUL CASE.

BY WM. H. INGHRAM, M.D., PH. GR., NEW YORK.

BECAUSE of the kaleidoscopic symptomatology traceable to the hypothetical condition known as the uric-acid diathesis there is, perhaps, no causal factor more often overlooked by the general practitioner, and, if suspected, more indifferently combated. "Regulate the diet and give plenty of water" has for years been the dictum in the treatment when the presence of uric acid is suspected or established.

It was formerly almost universally held that the various conditions due to the presence of uric acid were the outcome of errors in diet. Haig, in his Epitome of the subject, classifies these conditions under two heads: (1) The local or precipitation group, due to the irritating presence of uric acid in a fibrous tissue, either in solution or suspension, as in gout, and (2) the circulation or solvent group, due to excess of uric acid in the blood (collemia) and its effects on the circulation, blood pressure, combustion, and nutrition, as headache, epilepsy, convulsions, chorea, hysteria, neurasthenia, nervousness, mental depression, and a variety of conditions. The first group, according to Haig, are relieved by solvents; the second by retentives, while both are prevented by a uric-acid-free diet.

Many eminent authorities take issue with Haig's theories concerning the treatment of these conditions, some protesting that diet does not play so important a role as has been supposed.

It is not the purpose of this brief article to combat or agree with Haig and his followers or those who hold opposing views. It may not prove devoid of interest, however, to give the history of a case in which diet played little part in the treatment, however much causal importance it may have had.

Mrs. J. G., aged 33, married, one child. First came under my care when the child was six years of age.

Family History—Negative.

Previous History—Healthy as a girl. Menstruation normal. For some months previous to marriage she suffered from so-called indigestion and developed a tendency to melancholia. Pregnancy normal except for mental depression, which, however, was not sufficiently marked to warrant interference with pregnancy. Delivery normal, child healthy. Mental depression and indigestion persisted after delivery, each growing more marked. Cystitis developed a few months after birth of child, urination being accompanied by violent pains. Became very hysterical, the attacks becoming more and more frequent. Three years before she came under my notice she was operated upon for gall-stones, several small stones being removed. This was followed by some relief as to the violent character of the pain experienced, but the cystitis and mental nervous symptoms persisted.

Present History—When patient came under my care she was so hysterical and the melancholia so marked that her family feared insanity was imminent. The violent attacks of gall-stone colic were again a pronounced symptom, and at times urination was so painful that catheterization had to be resorted to for days at a time. A small stone passed was found to contain uric acid. I immediately ordered restricted diet, exercise and quantities of Buffalo Lithia Water. I soon found that I could not control the diet to any appreciable extent. Being in her own home she had access to the table and pantry, and I found that she gratified to the fullest her almost voracious appetite: nor could I get her to take more exercise than the average woman takes. Medicines seemed to have little effect, so I fell back upon the solvent and eliminant plan, insisting that she drink abundant quantities of this water. For some strange reason this idea was the only one that seemed to impress her, and she religiously consulted, at frequent intervals, the bottle of water which she had always at hand. In a short time I noticed an abatement of all the distressing symptoms, which fact stimulated her ambition to drink more and more of this water. She gradually increased the amount to two quarts per day, and with this simple treatment improved gradually until at the end of about three weeks she was entirely free from cystitis, had no more attacks of gall-stone colic, the hysteria disappeared, and she is to-day as happy and cheerful as the average woman.

AMMONIA BURNS OF THE EYE.

Edward Stieren, ophthalmologist and otologist to the Passavant Hospital, Pittsburg, directs attention to the dearth of information concerning the action of ammonia on the tissues of the eye. There are points of similarity in the action of carbolic acid and of ammonia on the tissues of the eye for the first few days following their introduction; but the author says that ultimately the prognosis regarding the vision of an eye so endangered is quite gloomy when ammonia has done the damage, but much better when the agent has been carbolic acid.

The author recites four cases of injury to the eye by ammonia, in only one of which was treatment effective, and the marked improvement that took place in this case was due no doubt, the author says, to the use of dionin, a new and valuable agent in ocular therapeutics, which has marked properties as a lymphagogue on the tissues of the eye.

Dr. Stieren, on being requested by members of the Medical Society of the State of Pennsylvania to relate his experience with dionin, spoke as follows: "My attention was first attracted to this agent in the summer of 1893, while visiting Fuch's clinic in Vienna, where they used it in cases of corneal opacities, uveitis, infected globes, and painful iridocyclitis. When first instilled,

it causes a severe smarting, lasting about a minute, followed by a general edema of the ocular conjunctiva. Usually the pain of an iritis or episcleritis is abolished in a few minutes after its use. I prescribe it in 10 per cent. and 20 per cent. solutions, dusting the pure drug into the eye in the office.

"In regard to lime burns, I cannot recall any at present where the cornea was rendered completely opaque. Usually there is more or less formation of symblepharon with marginal opacity of the cornea. Logically, dionin would be a very useful remedy in lime burns of the eye as it is an analgesic and has marked properties in promoting the flow of lymph in the anterior portion of the eye."—*Penn. Med. Jour.*, May, 1905.

THE MEANING OF SUBSTITUTION TO THE PHYSICIAN.

The substitutor prescribes for your patient, without regard to your reputation or the welfare of your patient, assuming that you do not know your business.

Why does he do it? For illegitimate profit.

What are you going to do about it?

The substitutor—You lose your patient but you don't know why.

The substitutor—The man who sells your patient a gold brick. Your patient believes you did it.

The name of the physician who permits substitution on his prescription—E. Z. Mark, M.D.

The substitutor—The man with originality or initiative. He wants to degrade you. Will you permit it?

The substitutor—The man who sacrifices you and your patient to satisfy his avarice.

What are you going to do about it?

The substitutor—Ananias was an angel compared to him. The first stole money and then lied about it. Penalty—Death. The substitutor steals your patient's money, his chance for life and your reputation as well. Penalty—Increased bank account.

ABSTRACTS.

Pyemic Infections.—M. G. Lebredo (*Revista de Medicina y Cirugia*, Havana) draws the parallel clinical picture of three pyemic infections—glanders, general streptococcus, and general staphylococcus infection. Differentiation is difficult in the clinic, and he urges physicians to apply to the Board of Health or elsewhere for bacteriologic examination of the pus without delay, if unable personally to attend to such tests. By this means it will be possible in time to stamp out the almost invariably fatal

glanders. He mentions a case of glanders personally observed, terminating in recovery. The patient was in the hospital a year and a half. The multiple abscesses were opened in turn and disinfected. When all had healed, except a single old one, an actual intermittent fistula, as he calls it, in the left inguinal glands, this was treated by radical extirpation. The cultures from the pus of this final lesion were negative toward the last.

Serotherapy of Pneumonia.—E. De Renzi (*Riforma Medica*, Palermo and Naples) concludes from his experiences with twenty-six patients treated with Pane's anti-pneumococcus serum are that the general condition always improved under the serotherapy. The patients say they feel better after the injection of serum, and this is not due to suggestion. The pneumonia had attacked strong men and reduced them to an alarming condition. When they said that they felt much better after the injection of serum, it could not have been the effect of suggestion under these circumstances. The temperature always subsided after the injection. When made in the morning, by evening the temperature was found reduced. As the general condition and the temperature improved, the pulse and respiration became less rapid. He has never seen any evidence that the local manifestations of the pneumonia are improved by the serum, but as the general condition is so much better, the local phenomena dwindle in importance as we see that the general resisting powers have been so powerfully reinforced. Another fact noted is that resolution does not occur with a crisis, but by lysis. The serotherapy evidently reduces the intensity of the disease, while it improves the general condition. The patient recovers without such loss of strength as is usual in the disease. Further evidence of this is the approximately normal blood pressure instead of the low pressure characteristic of pneumonia. Food can be taken early with a little alcohol.

Methylene Blue Urine Test.—M. Russo (*Riforma Medica* Palermo and Naples) proposes a methylene blue test which he thinks may advantageously substitute Ehrlich's diazo reaction. It is much simpler, while he has found the results equally reliable. In typhoid it affords more information than the diazo test, as it indicates the exact phase of the disease. The reagent is readily made and keeps perfectly. Methylene blue added to typhoid urine gives a characteristic color reaction, the tint changing to a pronounced emerald green. He uses a 1 per thousand aqueous solution of methylene blue. Four drops are added to a test tube containing from 4 to 5 c.c. of urine, and if the reaction is positive the fluid turns an emerald as mint green. A light green or

bluish green represents a negative reaction. Boiling the urine or previous ingestion of quinine, salol, calomel, euchinine, caffein or digitalis does not affect the reaction. It was encountered as early as the second or third day of typhoid in many instances, and was invariably positive in the 41 cases of typhoid and in the 32 of measles examined, paralleling the diazo reaction. In 10 cases of small-pox it was always positive, while the diazo reaction was negative in 2 of these cases. It was always negative in 10 cases of pulmonary tuberculosis in the first stage, while it was positive in 10 and negative in 20 out of thirty cases in the second stage. It was invariably positive in 25 cases in the third stage, also in 6 of tuberculous pleurisy, in 5 of tuberculous empyema and in 4 of tuberculous peritonitis, and was positive in 3 out of 5 cases of glandular tuberculosis, while the diazo reaction was positive in 4 of this latter group. Otherwise the diazo reaction nearly paralleled it. The methylene blue reaction was invariably negative in cases of scarlet fever, varicella, varioloid, influenza, bronchitis, pneumonia, and in gastric catarrh, in febrile gastroenteritis, in appendicitis, in renal lithiasis, in nephritis, in articular rheumatism, in cases of abscess in the liver, in mitral insufficiency, epilepsy, neurasthenia and malarial fever. The "mint" green tint is observed first, the emerald tone appearing as the disease reaches its height, while the tint grows more and more bluish as the patient progresses toward recovery, or the emerald tint persists till death. The constant presence of the reaction in small-pox and its absence in varicella and varioloid is an important differentiating sign.

Reflexes and Tremor in Neurasthenia.—G. Severino (*Riforma Medica,* Palermo and Naples) found tremor of the fingers in 88 per cent. of seventy-five neurasthenics examnied. The tendon reflexes were increased or exaggerated in 92 pr cent., while one or more of the superficial reflexes were abolished in from 70 to 85 per cent.

Appendicostomy.—The technic employed by J. P. Tuttle, New York (*American Jour. of Surgery,* New York), is as follows: The patient having been prepared as for the "interval operation," the abdomen is opened by the intermuscular method; an incision one and one-half inches long is sufficient in all uncomplicated cases. The appendix having been found and brought out over the skin, its artery is tied and the mesentery stripped down to its junction with the caput coli; a suture is then passed at the lower angle of the wound through the peritoneum, the muscular wall of the cecum at its juncture with the appendix and back through the peritoneum on the opposite side of the

wound, a second suture is then passed about one-half inch above the other, through the same tissues but on the upper side of the appendix. These two sutures being tied, the peritoneum is closed by continuous uture and the wound is closed by through-and-through or layer sutures, as the operator prefers; finally, one suture is passed through the skin and the muscular wall of the appendix on either side of the wound. The appendix is then wrapped in protective tissue, the upper angle of the wound is sealed by protective tissue and chloroform, and a simple dry dressing is applied. In thirty-six hours the dressing is removed and the appendix is cut off, about one-fourth of an inch from the skin of the abdomen. It will usually be found more or less gangrenous at its tip on account of the main artery having been cut off. Some small dilating instrument is introduced through the caliber of the appendix into the cecum, and this followed by the introduction of a No. 10 to 12 soft rubber catheter. This should pass in about four inches; a little silk thread should then be thrown around the protruding portion of the appendix and tied firmly around the catheter in order to prevent any escape of feces or intestinal fluid along the sides of the tube. This also serves to cut off the stump of the appendix flush with the skin. The catheter should protrude from the skin about two inches and should be fastened with a safety pin in order to prevent its slipping in either direction. The operation can be done quickly; it affords ample access for irrigation and medication of the colon, and the disagreeable features of artificial anus are practically eliminated. The opening does not close spontaneously, and yet it can be closed by cauterizing the mucous membrane when advisable. Irrigation may be begun any time after catheter is introduced.

Radical Cure of Congenital Inguinal Hernia.—A. C. Smith, P.H. and M.-H. S. (*Journal of the Association of Military Surgeons of the United States*, Carlisle, Pa., June) has devised an operation for the radical cure of congenital inguinal hernia, which he employed in four cases (out of 63 hernias operated on in 60 patients). The method is as follows: After forming a tunic for the testes out of the lower end of the sac, the remainder of the sac, except the strip which lies immediately on the vas and its vessels and nerves, is trimmed away close to the abdominal cavity. The simple wound of the peritoneum which results is closed with a continuous suture, one extremity ending at the cord. The transversalis fascia is sutured either with the peritoneum or separately, and the operation is proceeded with according to the Bassini method. The strip, which is left attached to the cord, consists of peritoneal membrane and does not interfere with the

closure of the openings in the sac. There is no more difficulty in closing the peritoneal wound completely and securely than in any other situation.

Filarian Hemoptysis.—R. G. Mon and N. Carballo (*Revista de Medicina y Cirugia,* Havana) describes the case of a man of thirty-three who presented nocturnal hemoptysis on twelve occasions, and a single embryo of the *Filaria Bancrofti* was discovered in the specimen of his blood. Under treatment with tincture of iodin, the hemorrhages promptly ceased, and after slight fever for two days he rapidly recovered and has been in perfect health since, with no signs of cough, fever or hemoptysis.

Dementia Præcox.—In a paper with this title, by R. Sachs, New York (*Journal of Nervous and Mental Disease,* New York, June) especial stress is laid on the following points: There are unquestionably many cases that correspond accurately to the types described by Kraepelin and his followers. This is particularly true of the earlier forms of mental derangement occurring in members of families in which there is a very marked psychic taint. Even in such individuals, however, many years pass before appreciable dementia sets in. The term should be carefully restricted to those cases in which mental deterioration at an early stage of the disease is clearly recognizable, and should be carefully considered and if posible avoided in those cases in which a dementia may possibly be developed in the far distant future. Making the diagnosis of dementia præcox puts the stamp of an incurable malady on individuals who may be sufficiently alert to be useful to themselves and to others for a long period of years, and in that sense does them a distinct injustice. There seems to be little gain in grouping widely different conditions under one heading simply because the individuals so afflicted are in the first third of life. The older plan of clinical subdivision is more commendable, and the tendency to dementia should be insisted on only when there is reason to think that a deterioration is certain to develop at a relatively early period.

Mistaken Diagnosis of Extrauterine Pregnancy.—E. Fortun (*Revista de Medicina y Cirugia,* Havana) describes three cases, in two of which there had been abortion after a few weeks of uterine pregnancy. The signs of the pregnancy were accompanied by an abdominal tumor, a sarcoma of the broad ligament in one, and an ovarian cyst in the other. In the third case, a dermoid cyst of the right ovary, with a long pedicle, induced symptoms suggesting pregnancy. As the uterus showed no signs of such a condition, an ectopic pregnancy was assumed.

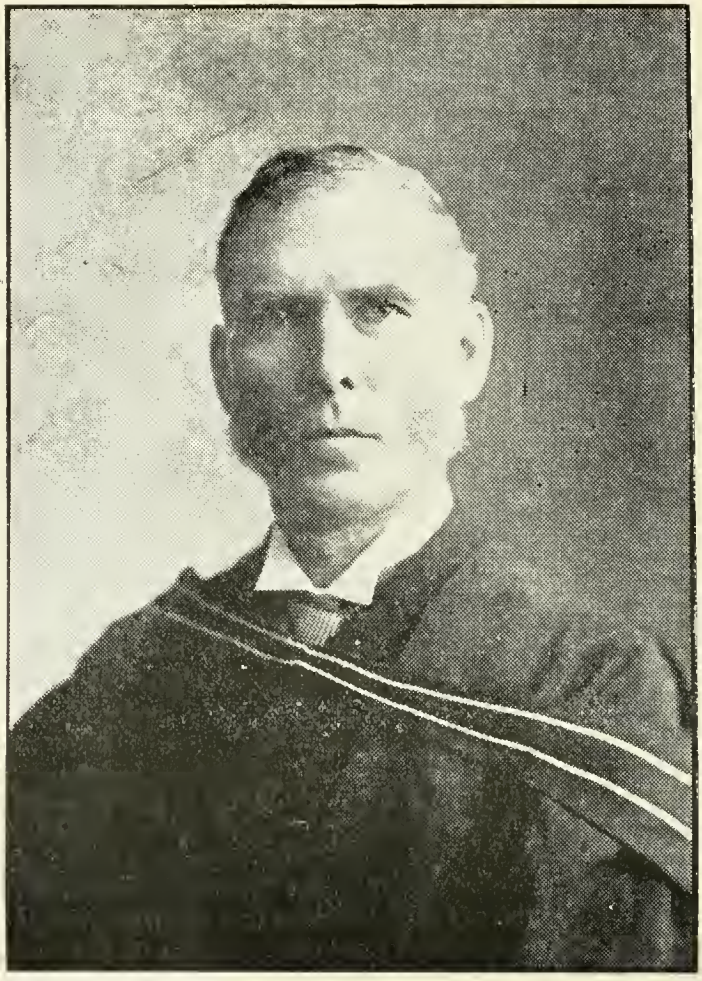
Summer Diarrheas in Infancy.—C. H. Dunn, Boston (*Archives of Pediatrics,* New York, June) states that the diarrheal diseases of infancy occurring in the summer months differ in no way, either clinically or anatomically, from the diarrheal diseases occurring in the cooler months, except in their much greater frequency. Classification on an anatomic basis, as for example into functional and organic, or non-inflammatory and ileocolitis, is not convenient for etiologic study, owing to the variety of lesions found in cases of similar etiology and similar clinical course, and to the lack of correspondence between the anatomic and clinical pictures. The following clinical classification is suggested: (*a*) Acute nervous diarrhea, characterized by loose stools of normal color and odor, without abnormal constituents. (*b*) Irritative diarrhea. Acute intestinal indigestion of the irritative type, characterized by the absence of persistent fever, and by the presence of curds and undigested masses in the discharges. (*c*) Fermental diarrhea. Acute intestinal indigestion of the fermental type, characterized by the absence of fever, and by green stools of a foul or sour odor. (*d*) Infectious diarrhea, characterized by the existence and persistence of fever, and by the tendency toward early signs of ileocolitis, as shown by the presence of blood, and excess of mucus in the discharges. When a specific organism, the *Bacillus dysenteriae,* is proved to be the cause, the case may be further particularized by the term infantile dysentery. (*e*) Rare cases occur, corresponding to the known description of heat exhaustion and cholera infantum. Of the above differentiated types, the indigestion, including the irritative and fermented cases, is by far the commonest. The chief or primary cause of all the above types is the increased heat of the weather occurring during the summer months, which probably acts in the noninfectious cases by producing functional disturbance either of the nervous system or of the digestion; and which acts in the infectious case by producing in the intestine conditions more favorable to the occurrence of infection. The name thermic diarrhea can be given to the entire group. Bacteria are the secondary cause of a certain number of cases, such cases being mainly, if not wholly, of the type classified clinically as infectious. Infection occurs by the introduction of bacteria from without, or by autoinfection with bacteria already in the intestine. The latter is probably the usual method. The *Bacillus dysenteriae* is a cause of most of the infectious cases. Whether it is the sole cause remains to be determined. The *Bacillus dysenteriae* can often be found in the intestine in cases in which it probably has no causal relation with the pathologic process. Such cases are usually clinically of the non-infectious type. Other organisms are probably a cause of some infectious cases.

The anatomic changes of various kinds included under the term ileocolitis may occur in any of the above clinical types except the acute nervous. Anatomic changes of some kind probably occur in all infectious cases.

History of Yellow Fever in Cuba.—J. Le-Roy y Cassa (*Revista de Medicina y Cirugia,* Havana) traces the history of yellow fever in the island and its extirpation a few years ago. The three years of exemption are the most eloquent proof, he remarks, of the truth of the doctrine which Finlay proclaimed in the Havana Medical Society as long ago as 1881.

Defective Hearing in School Children.—C. Compaired (*Siglo Medico,* Madrid) urges that the hearing capacity of every child should be examined when it enters school, and again at stated periods. Teachers should be informed when a child is defective in this respect, and should be instructed to favor it as far as possible. Parents should be educated to detect the early symptoms, and the children should be treated in special otologic clinics, separate from the ordinary hospital or other ear clinics. The teachers might test the hearing of the children if a simple card of instructions were given them, and by this means incipient disturbances might be detected in time for treatment to be effectual. In his own experience, out of 1,366 cases of deafness between the ages of ten and sixteen, 16.55 per cent. were due to affections of the outer ear which could easily have been cured by simple measures, and thus have saved the child's hearing. In 18.89 per cent. the deafness was due to obstructions which might readily have been removed. In 33.79 per cent. it was the result of some infectious disease, and this proportion would certainly have been less if the ear complications had received prompt treatment. He regards adenoid vegetations as one of the most frequent causes of deafness. In 320 recent cases in which adenoid vegetations were removed he found bilateral purulent otitis media in 37, and unilateral in 41, catarrh of the tube in 68, hypertrophy of the turbinates in 79, enlarged tonsils in 59, enlarged glands in the neck in 14, and nasal catarrh in 17. In his general examinations of school children he has become convinced that fully 20 per cent. suffer from some ear affection. Districts with a moist, hot climate show much the larger percentage of purulent and catarrhal affections of the nose, throat and ears.

Anakhre, Goundou.—A. Ayala (*Revista de Medicina y Cirugia,* Havana) writes from Venezuela to describe a case of this affection in a white merchant, thirty-nine years old, a resident of Caracas, previously healthy. A large lump has developed on each side of his nose. The lumps are never painful and cause no disturbances except the mechanical ones.



R. A. REEVE,

Dean of the Medical Faculty of the University of Toronto, and president-elect of the British Medical Association.

RICHARD ANDREWS REEVE, M.D., was born in Toronto in 1842. He was educated at the University of Toronto, where he secured his B.A., and the silver medal in Natural Sciences in 1862. He graduated in Medicine from Queen's in 1865, and became Fellow of the Royal College of Physicians and Surgeons at Kingston in 1866. In the same year he was appointed assistant surgeon of the Toronto Eye and Ear Infirmary, a position which he held until 1872. As a specialist in eye and ear diseases, he went into partnership with Dr. A. M. Rosebrugh. He received an honorary M.D. degree from the University of Toronto in 1889, and was appointed lecturer in Ophthalmology and Otology in the medical faculty of the university. He was elected dean of the faculty in 1896. He is a member of the university council, and has been president of the Ontario Medical Association. He is a member of the American Otological Society, of the Ophthalmological Society of the United Kingdom, and of the American Ophthalmological Society. Dean Reeve has for years been perhaps the best known member of the medical faculty, and is the idol of the generations of students who have passed under his hands.

The Canadian Journal of Medicine and Surgery

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Editorials.

MEDITERRANEAN FEVER (MALTA FEVER).

MEDITERRANEAN fever is a fever of long duration, bearing some resemblance to typhoid fever, but distinguished from it by the absence of rose spots, the fact that Peyer's patches are not enlarged or ulcerated, and the low mortality. It occurs along the shores of the Mediterranean, Gibraltar, Naples and among its islands, Malta, etc. It is not thought to be contagious from

person to person. Taylor (*Practice of Medicine,* 1904) thinks that "It is conveyed by means of drinking water," but offers no evidence for this opinion. Osler (*Practice of Medicine*, May, 1905) says: "Insanitary conditions favor its spread, but we cannot as yet say whether the poison is air-borne or water-borne."

The micrococcus melitensis is said to be the pathogenic cause of the disease, and the blood serum of a patient who has Malta fever agglutinates cultures of micrococcus melitensis, in the same way as in enteric fever the serum agglutinates cultures of typhoid bacilli. Recently, June 14, 1905, fresh light has been thrown on the etiology of this disease. Dr. Zammit, who was engaged in doing experimental work in Malta, took blood from six goats belonging to two different herds, and tested the action of their serum on the micrococcus melitensis. He discovered that the serum of five of these animals, when considerably diluted, caused agglutination of the microbe. This discovery was confirmed by Major Horrocks, of the Public Health Laboratory, who conducted a bacteriological examination of the milk and urine of the goats and found the micrococcus melitensis in abundance in the former fluid.

It now seems clear that goats' milk is the main source of the spread of Mediterranean fever in Malta, Gibraltar and other places. Some think (*B. M. J.*, for instance), that Malta fever is a disease of goats, not producing, as far as at present known, any symptoms in them, but capable of being transmitted to men by their milk and setting up the symptoms known as Mediterranean fever. There are, most probably, other pathogenic microbes present in the milk supply of Malta, *e.g.,* bacillus coli. While this editorial is being written, a former resident of La Valletta, Malta, tells us that the milch goats of that island are rarely, if ever, cleaned, and that the hands of the goatherds who milk them, are innocent of soap and water. "The goatherds bring their goats before your door, crying, 'Latte' (milk). If you ask for some milk, the goats are milked in your presence, so that you can, from day to day, judge of the uncleanliness of the goats and the goatherd. The goats' milk always required straining." Osler writes of "A malignant type of Mediterranean fever in which the disease may prove fatal within a week or ten days—an undulatory type—the common variety, in which the fever is marked by intermittent waves or undulations of variable

length separated by periods of apyrexia and freedom from symptoms. In this really lie the peculiar features of the disease, and the unfortunate victim may suffer a series of relapses, which may extend from three months, the average time, to two years. Lastly, there is an intermittent type, in which the patient may simply have daily pyrexia towards evening without any special complications and may do well and be able to go about his work, and yet at any time the other serious features of the disease may develop." Osler's description of the clinical history of this fever seems to fit in with the theory of its etiology from the unwashed hands of dirty goatherds, who themselves suffer from Mediterranean fever in a chronic form. This theory might also explain the tendency to recurrence noted in persons suffering from this disease. Milk being the food of fever patients, patients ill with Malta fever would, according to the circumstances detailed above, receive fresh increments of the micrococcus melitensis in every drop of unboiled milk used by them.

An interesting investigation, therefore, would be a study of the bacterial flora on the hands of Maltese goatherds. It is likely that these men carry this microbe on their hands and, during oft-repeated milkings, inoculate fresh animals in their herds. These goats thus become the hosts of the micrococcus melitensis, though, possibly, not its victims. If the female goats were to suffer from Mediterranean fever, one would expect that their mammary secretions would dry up. The fact that they continue to secrete milk, while that fluid is full of micrococcus melitensis, goes to prove that this micrococcus is not pathogenic for them, though it causes fever in men who drink their milk. The cycle of events, according to this view, would be: The micrococcus melitensis present, in symbiosis probably, on the unwashed hands of goatherds; this microbe conveyed to female goats through chafing of the teats by rough usage or over-frequent milking; introduction of the microbe into the blood stream of the goat; discharge into the mammary secretions; entrance of the microbe into the intestines of men consuming such milk; resultant, fever.

This, of course, is conjectural at present, but *si non e vero e ben trovato.* At all events the prevention of Mediterranean fever should embrace: Cleanliness of the hands of the goatherds, and of the goats too, and until the disease can be suppressed, the boiling of goats' milk before consumption. J. J. C.

OPEN MEETING OF THE TORONTO MEDICAL SOCIETY—DR. MATHEW D. MANN'S PAPER.

On the evening of October 5th, 1905, the Toronto Medical Society held an open meeting at the Lecture Room of the new Medical Building, Queen's Park. About sixty persons, some of whom were ladies, were present.

The programme consisted of the President's address by Dr. E. Ralph Hooper, Toronto, and a paper on "Pernicious Vomiting in Pregnancy," by Dr. Mathew D. Mann, Professor of Obstetrics and Dean of the Medical Faculty of Buffalo, N.Y. Dr. Hooper's paper dealt with the latest views of physiologists and clinicians as to the structure and functions of the ductless glands. He received a vote of thanks from the Society for his very able effort.

Dr. Mann divided cases of pernicious vomiting in pregnancy into three groups: the reflex, the neurotic, and the toxemic. He did not dwell on the first and second groups, attaching most importance to the third. The toxemic he subdivided into two classes, first, those depending on insufficient renal excretion, and second, those having hepatic disease for their cause. The first class, he thought, were quite common, and with them the prognosis was fairly good. The second class were more serious, and had only lately been described. The condition in some of the severe cases was similar to the pathological conditions found in cases of acute yellow atrophy of the liver. The ammonia in the urine rose to 10to 12 per cent., instead of 1.5 or 2.5 per cent. The urine also contained casts, albumen, and was of a low specific gravity. Dr. Mann favored the use of the vapor bath or hot bath, which helped the urinary functions, as well as that of the skin. He prescribed the employment of the physiological salt solution, per enema, several times a day, as a diuretic, to assist in eliminating the toxins. He did not favor nutritive enemata. As a last resort he recommended the induction of abortion, and mentioned a case in which he had employed that treatment recently with success, although the ammonia output was greatly increased.

Dr. Adam Wright, Professor of Obstetrics, University of Toronto, who concurred in the main with Dr. Mann's views, did not think favorably of the hot bath as an aid to the elimination

of toxins. He preferred calomel and sulphate of magnesia. Dr. Mann's paper was also discussed by Dr. Albert Macdonald and Dr. A. O. Hastings. A hearty vote of thanks to Dr. Mann was passed, and the hope was freely expressed by many present that the Toronto physicians would soon have another opportunity of hearing him again. J. J. C.

A CENTRAL EXAMINING BOARD FOR THE GRANTING OF MEDICAL LICENSES IN QUEBEC.

At a meeting of the Executive Committee of the College of Physicians of Quebec and the representatives of the universities of that province, held at Montreal, June 6th, 1905, the question of the establishment of a central board of examiners to grant licenses to practise medicine in Quebec was considered.

After the various questions involved had been discussed, the following resolution was moved by Dr. Brochu, and seconded by Dr. Faucher: "That the question of establishing a Central Board of Examiners, two-thirds of whom shall be professors of the universities, and one-third of physicians who are not professors, be submitted to the universities, with the reasons alleged in favor of the project, and, if the universities are in favor of considering the project, the President of the College of Physicians shall be authorized to call a meeting of the representatives of the universities and the members of the Executive Committee of the College of Physicians in order to prepare an amendment to the law of the College providing for the establishment of such a Central Board of Examiners, and that this Bill shall be submitted for the approval of the universities and the College of Physicians before presentation to the Legislature."

One of the principal reasons alleged for the establishment of such a Central Board of Examiners was to facilitate the introduction of medical reciprocity between Quebec and Ontario. In Revised Statutes of Ontario, c. 148, s. 26, we read: "When, and as soon as it appears that there has been established a Central Examining Board, similar to that constituted by this Act, or an institution duly recognized by the Legislature of any of the other Provinces of the Dominion of Canada as the sole examining body for the purpose of granting certificates of qualification,

and wherein the curriculum is equal to that established in Ontario, the holder of any such certificate shall, upon due proof, be entitled to registration by the Council of Ontario, if the same privilege is accorded by such Examining Board or institution to those holding certificates in Ontario."

The establishment of a Central Board of Examiners in Quebec would necessitate the abandonment of the privilege now enjoyed by the Quebec universities of granting to their medical graduates licenses to practise medicine in Quebec. It is true that a representative of the Quebec College of Physicians is present at these professional examinations, but he does not question the candidates. His office is to see that the oral examinations are conducted properly. In the other Canadian provinces the universities have not any such privilege as that enjoyed by the Quebec universities, and the license to practise in a province is given only after passing an examination before a Board appointed by the Provincial College of Medicine. The other provinces have frequently expressed their willingness to support interprovincial reciprocity in medicine on the same conditions as those proposed by Ontario. Hence it follows that the passing of a law providing for the establishment of a Central Board of Examiners in Medicine in Quebec would lead rapidly to interprovincial registration of medical diplomas throughout Canada.

It is possible, however, that a difficulty may arise when Laval University discusses the matriculation standard in medicine with McGill University. Laval wishes that the medical student shall have made a complete classical course—be qualified as a Bachelier ès Arts or Bachelier ès Sciences—before beginning the study of medicine. McGill University does not go so far. Her matriculation standard in medicine is similar to the matriculation of the Arts course of that university. McGill University might possibly be willing to go as far as Laval University in demanding of her medical students the title of Bachelier ès Arts before beginning medical studies, if the Ontario College of Physicians and Surgeons, equally exigent, would compel every applicant for a license in Ontario to obtain some similar academic qualification before beginning professional study. If it were otherwise McGill could not afford to do it. For if the Quebec universities were to unite in demanding a Bachelier ès Arts qualification from prospective medical students, while the Ontario College of Physi-

cians and Surgeons asked a modified form of the pass matriculation examination in Arts of the University of Toronto, English-speaking medical students from Quebec would abandon McGill, matriculate at Queen's University, or the University of Toronto, and pursue their studies at one of these institutions. Such students, it is true, could not take out licenses to practise in Quebec; but they could qualify in Ontario, and, if they wished, could pass the State Board examination in one of the United States. In fact, such a high-class matriculation standard would limit the production of doctors in Quebec, and *pro tanto* would be of decided benefit to the overcrowded profession of that province. But it would be a very unprofitable undertaking for McGill University—in fact, a form of suicide.

Ontario, therefore, holds the key of the situation. If the Ontario Council of Physicians and Surgeons will demand the equivalent of a Bachelier ès Arts qualification from future medical students, McGill can acquiesce in the programme of her French-speaking sister and do likewise.

It is not necessary that a medical student should obtain a B.A. diploma, in the English sense of that term, in order to qualify for efficient medical study. The diploma won by a Bachelier ès Arts shows that he is well skilled in some of the Latin and Greek classic authors, in French, and some other modern languages; mathematics, literature, logic and metaphysics; that he can compose well and express himself like a gentleman. The senior matriculation in Arts, or its equivalent, the pass examination in Arts of the first year in the University of Toronto, ought to be equivalent to the Bachelier ès Arts qualification. At all events, if not quite equivalent, a little raising-up or cutting down would bring these tests to the required level. If the Quebec universities would accept such a matriculation standard, the examination under which could be passed either before the examiners in Quebec or at the University of Toronto, or at Queen's, or the Western University, a student in medicine could study at the medical school of his choice, and pass the required professional examinations before the Board of Examiners of the province in which he wished to practise. As under such circumstances as these interprovincial registration would inevitably follow, a qualified Canadian doctor would be free to exhibit his sign in any part of the Dominion of Canada he might wish to practise in. J. J. C.

EDITORIAL NOTES.

Simplicity in Surgical Dressings.—At the banquet of the Surgeons' Association, given at the Hotel Astor, New York, September 21st, 1905, Surgeon-General Suzuki, I.J.N., described the aseptic dressing of wounds in the Japanese service. "In dressing wounds," he said, "we have had the best results from the use of sterilized water. We used no carbolic acid, no antiseptic dressing of any kind. We wrapped our wounds in dry gauze." He described at great length the treatment of one of Togo's captains with this method. A perusal of the above, which appeared in a press despatch, would induce a non-medical reader to imagine that the victorious Japanese had been giving lessons to the New York surgeons as to the latest and best methods of dressing wounds. All that can be really taken from the despatch is, that Dr. Suzuki and his compeers in Japan favor the aseptic method of dressing wounds, instead of the antiseptic one. In the aseptic method no antiseptic substances are employed during the operation or the dressing of the wound, except to such factors of the procedure as cannot be properly sterilized by heat. Therefore, the field of the operation, the hands of the operator and of the assistants, and the catgut, and perhaps the drainage agent, are antiseptically prepared in both methods. In the aseptic method, sterilized water, sterilized saline solutions, sterilized wipers and dressings, prepared by dry or moist heat, are exclusively used. The advantages of the aseptic method are notable. It can be applied to all parts of the body; the wounds heal more quickly; the patient's skin is not irritated, and toxic dangers are absent. All this is well known, and was known long before the Russo-Japanese war began.

To Lessen the Prevalence of Insanity in Canada.—To judge by the number of asylum cases, insanity in Canada increased 25 per cent. in ten years, 1891-1901. In 1891, according to Dr. Burgess, President of the American Medico-Psychological Association, the insane asylums of the Dominion contained 13,342 cases out of a population of 4,719,893. In 1901, 16,662 lunatics were kept under restraint in the various institutions, and the population was 5,371,315, an increase of nearly 25 per cent. in the

number of lunatics, whereas the increase in the total population was less than 13 per cent. Dr. Burgess attributes the alarming increase in the number of the demented to immigration and the laxity of medical inspection at the various ports, which is said to be a mere formality. He asserts that the imported element —a little over 13 per cent. of the general population—furnished over 17 per cent. of so-called Canadian lunacy. This is a rather severe arraignment of the port inspectors of the Canadian Government. Dr. Chas. K. Clarke, Medical Superintendent of the Toronto Asylum for the Insane, evidently shared in this opinion two years ago, for, in a paper read at the meeting of executive officers of Provincial and Local Boards of Health, held at Peterboro', September 10th, 1903, he said, *inter alia,* "If I could show you many of the degenerates I have met who came here under the name of desirable immigrants, you would marvel that they could have passed the most perfunctory inspection, so obvious were the ear-marks of degeneracy." Dr. Clarke also mentioned a new law introduced by Congress, amending the restriction of the immigration of the defective classes, which interposes a bar to lunacy and crime coming to America from abroad. An important feature in this law is the extension to three years of the period of probation during which insane or criminal aliens, who have landed in contravention of the laws of the United States, may be deported. Suitable provision is made for obtaining information leading to the detection of defectives and the facilitation of the enforcement of the Act. Dr. Clarke suggests that similar legislation be passed in Canada. The advice is a good one, and, whether as a check on perfunctory inspection at the Canadian port of arrival, or as a reason for introducing legislation to lessen the number of defective aliens in the asylums of Canada, is worthy of the consideration of the Canadian Government.

The Treatment of Chronic Nervous and Incipient Mental Diseases in Toronto.—We notice in an article in a local paper that the residence formerly occupied by Dr. Charles O'Reilly, ex-Medical Superintendent of the Toronto General Hospital, is to be changed into an institution for the treatment of patients suffering from chronic nervous and incipient mental diseases. The building is given by the trustees of the hospital; the necessary changes

and furniture are to be supplied by the Ontario Government. In all probability, Dr. Campbell Meyers, at whose suggestion this desirable change has been made, will be the chief medical officer of the new institution. The poisons of alcohol, syphilis, morphine, etc., have long been recognized as the agents which produce certain forms of insanity. In most cases of puerperal insanity, septic infection of the genital tract is present; whilst in many acute forms of insanity the absorption of poisons from the intestinal canal is the probable mode of infection. These facts are of great significance in the prevention and treatment of certain forms of acute insanity. Intestinal antiseptics have been used with advantage in some cases. Gastric lavage and saline purgatives, together with warm shower-baths and hot packs, are still more efficacious. Bruce Smith showed (*Montreal Medical Journal,* February, 1904) that such a course frequently produces marked sedative effects in acute insanity. Similar treatment, together with careful disinfection of the genital tract, has also proved beneficial in cases of puerperal insanity. Those forms of insanity due to deficient development of the brain, or to structural lesions of the higher cerebral centres, cannot, of course, be prevented. There are cases, however, in which through the direct influence of syphilis or other toxemic conditions, together with mental strain, even a robust, nervous system may give way. Or a person predisposed to insanity by heredity may escape insanity, if instructed to avoid exciting causes, such as stress and excitement of city life and excesses of all kinds. The digestive organs must be looked after and regulated; a congenial occupation followed; sleeplessness must be guarded against. A clinic in which advice and prompt treatment will be given to patients so affected ought to be useful in overcoming the first approaches of incipient mental disease. It should also prove to be a valuable source of instruction to medical students.

The Temenah, a Hygienic Salutation.—A correspondent of *La Presse Médicale,* G. V., writes an entertaining little article on the merits of the Temenah, an oriental form of salutation, which consists in placing successively the right hand over the heart, on the lips and on the forehead, meaning thereby, "Your person is ever in my heart, on my lips, and in my thoughts." The temenah, G. V. says, is the real hygienic salutation, doing

away absolutely with all contact with the hands of strangers, which are more or less soiled; and, for this reason, it merits the approval of all those who do not wish to exchange different kinds of microbes with their neighbors. To the surgeon this is a very strong argument. The public are also interested. Without mentioning scarlet fever, which may be taken or given through a clasp of the hands, many other contagious diseases are similarly disseminated. There is some reason for thinking, therefore, that this universal method of expressing civility may occasionally be a real danger. While there is a good deal to be said from the hygienic standpoint in favor of an aseptic salutation, whether it be the temenah or a simple bow, it will be a long time before the people in America will cease to express their sociable feelings by kind shakes of the hand. Besides, the risks of contagion do not seem very obvious to the ordinary individual. If one runs the risk of giving or receiving contagion in clasping the hands of a few friends of an evening, what would be the risks run by a representative personage who shakes hands with from 1,500 to 2,000 persons at a reception?

The Surgical Treatment of Vulvo-Vaginal Abscess according to Dr. Doleris.—Dr. Doleris, in *Gynécologie* (February, 1905), recommends to the general practitioner the following treatment for vulvo-vaginal abscess: (1) A free, longitudinal incision at the juncture of the muco-cutaneous surfaces of the tumor. Antiseptic lavage of its cavity and examination of its walls for indurated lobules. When the abscess is emptied, the cutaneous wall, which had been quite thin, retracts and thickens. (2) Cauterization, with the thermocautery, of the whole internal surface of the abscess cavity, carbonizing it to a depth of several millimetres, being careful to protect the edges of the incision. The cavity, which at first had been deep, becomes smaller and smaller and is reduced to a little pocket, bounded by thick walls. The carbonized surface is then powdered over with a mixture of iodoform and dermatol. (3) A vertical drain is introduced and the edges of the incision are drawn carefully together with horse-hair sutures. If the edges of the incision have been kept apart by Kocher hemostats during the cauterization, union by the first intention takes place rapidly and surely. The drain should be about three millimetres in size.

Sometimes only the lower portion of the incision is drained, the remainder having been sutured. (4) An antiseptic and isolated dressing of the region to prevent the contact of urine or utero-vaginal secretions, which is easily accomplished, if the surgeon has been careful to make his incision at the junction of the skin with the vulvar mucous membrane. In a few days the elimination of the carbonized parts takes place through the drain and is soon completed. Generally after the tenth day only a thick serous fluid escapes. The drain soon becomes unnecessary on account of the rapid retraction and filling up of the little cavity. Dr. Doleris says that his operation is simple and may be done rapidly and by any physician, while the removal of the whole vulvo-vaginal gland is difficult, takes a long time, and exposes the patient to the danger of having cysts opened or to very free hemorrhage. This operation, he says, has always been successful in his hands, and the resulting deformity to the labium majus is trifling.

The Immunity Unit for Standardizing Diphtheria Antitoxin.—In accordance with the Act of Congress, approved of July 1st, 1902, no one is allowed to engage in interstate traffic in antitoxin without a license issued by the Secretary of the Treasury, on recommendation of the Surgeon-General of the Public Health and Marine Hospital Service of the United States. This license is issued only after a careful inspection of the establishment, its methods of manufacture, and an examination of its products for purity and potency at the Hygienic Laboratory, Washington. As antidiphtheritic sera, manufactured by different American firms, are used in this country, the Canadian profession will learn with satisfaction that all these products are alike subject to Government inspection and analysis, and that those which are marketed here can be depended on for strength and efficiency. Dr. Rosenau, Director of the Hygienic Laboratory, Washington, in a scholarly pamphlet, issued April, 1905, shows the importance of having a diphtheria antitoxin, the value of which has been accurately determined, and also explains at length the scientific methods by which such a standard preparation has been obtained.

J. J. C.

PERSONALS.

Dr. Frank Parsons, of Red Deer, Alta, was married in Brampton, Ont., on October 14th.

We congratulate Dr. John Wesley, of Newmarket, Ont., on the result of the suit against him for malpractice which was promptly dismissed on the 14th ultimo.

Dr. G. A. Peters has resumed practice at 102 College Street. We are glad that the doctor's health is the better for his few months' rest near London, and trust that such will continue.

We extend heartiest congratulations to Dr. W. B. Thistle on his marriage, on October 25th. Dr. and Mrs. Thistle will reside at 171 College Street, the residence the doctor purchased some little time ago.

The sympathy of the entire profession is extended to our old schoolmate, Dr. R. J. Wilson, Bloor Street West, on his recent sad bereavement. Mrs. Wilson died on October 22nd, after an illness extending over several years.

Our New Department of Dermatology.—We are pleased to announce that Dr. D. King Smith, who returned to Toronto a few weeks ago, after spending six months in London, making a special study of dermatology under such renowned men as Crocker, Sequeira, and others, has consented to take charge of a Department of Dermatology in connection with our journal. Dr. Smith intends making a specialty of cutaneous diseases, and will confine his practice to that line of work. We take this opportunity of thanking him for acceding to our request. From time to time he will give our readers contributions on this interesting branch of practice.

Obituary

DEATH OF DR. BARNARDO, THE GREAT PHILANTHROPIST AND FRIEND OF CHILD WAIFS.

Dr. Thomas John Barnardo, the well-known founder and director of philanthropic institutions, by which over 55,000 orphan waifs have been rescued, trained, and placed in life, died September 19th, after a short illness. Dr. Barnardo had suffered from angina pectoris for some years.

Very recently Dr. Barnardo was receiving congratulations upon his sixtieth birthday, and many years of active work were anticipated for him. Born in Ireland in 1845, the ninth son of John M. Barnardo, Thomas John Barnardo was educated at private schools. He studied in London, Edinburgh and Paris hospitals, and when in London in 1866 first had his attention directed to the street waifs, of whom he afterwards became the greatest friend. He spent his spare time in investigation and boarded out his first proteges in 1866-1867. A home was established in 1867, and the Village Homes for girls at Ilford, Essex, were founded in 1873. Her Majesty's Hospital for Sick Waifs followed in 1887, and the Young Helpers' League formed in 1891. Dr. Barnardo received the diploma and medal of the Paris Societe Nationale d' Encouragement du Bien in 1885. He published many articles and booklets in connection with his work and edited two magazines in its interests.

Dr. Barnardo had been in Canada several times, the last occasion being in 1901, when he visited the house at Peterboro', the head office at 214 Farley Ave., Toronto, and the homes in the West, the Farm House in Manitoba and that in Winnipeg. The Toronto home is a distributing centre, and 18,000 boys and girls have been brought to Canada by the Barnardo agencies. The head office in Stepney Causeway, London, has 121 branches in England and abroad. Last June there were 8,493 children under care, and in 1904, 10,900 had been looked after.

Of the 3,827 candidates who, being absolutely destitute and homeless, were admitted on application during 1904, 367 were babies in arms, 124 were deaf and dumb, or blind, or deformed, or little incurables, 215 were homeless youths over sixteen years of age, who were assisted to find their footing again through the labor house, while 73 were very young women from the black army of the streets.

Dr. Barnardo had a strange mixture of blood in his veins. His father was a German of Spanish descent. His mother was born in Ireland of English ancestry. He himself was born in Ireland, and was a Protestant of the Protestants. In early life he intended to become a missionary to China, but while at London studying medicine with that end in view cholera broke out. When others stampeded, Dr. Barnardo volunteered for slum work, and this led him to work in a "ragged school." Here it was that the memorable incident took place which led to the establishment of the Barnardo Home. One raw winter night a little urchin, Jim Jarvis by name, begged to be allowed to stay for shelter in the ramshackle school-room.

"What would your mother think?" said Barnardo.

"Ain't got no mother."

"But your father?"

"Ain't got no father."

"Stuff and nonsense, boy; don't tell me such stories! You say you have not got a father or mother. Where are your friends, then? Where do you live?"

"Ain't got no friend. Don't live nowhere."

Dr. Barnardo was incredulous, but continued his cross-examination.

"Tell me, my lad, are there other poor boys like you in London, without a home or friends?"

"Oh, yes, sir, lots—'eaps on 'em; more'n I could count."

Jim was put to the test that very night, and in the very first place visited eleven boys were found sleeping in the cold, on top of the roof of a shed. After further investigations, Dr. Barnardo told a party of rich friends of his discoveries. They could not believe his report, so cabs were hired and they went to see for themselves. Billingsgate was visited, and no boys were to be seen. Barnardo's heart sank, but a policeman standing by told him it would be all right. "They'll come out," he said, "if you give them a copper."

A half-penny a head was offered, and then from out of a great, confused pile of old crates, boxes and empty barrels, which were piled together, covered with a high tarpaulin, crept seventy-three boys, a sorrowful and mournful regiment of the great army of the destitute.

"I pray God," said Barnardo, "that I may never again behold such a sight."

The home was started at once on a mean street, with twenty-five boys.

News of the Month.

THE MANAGEMENT OF THE ASYLUMS.

For the first time in the history of the province the medical superintendents of Ontario's prisons and asylums met in the Parliament Buildings on September 21st, and formed a preliminary organization, after discussing many questions of interest with respect to the institutions they represent. The gathering was held on the suggestion of Hon. Mr. Hanna, Provincial Secretary, and is the forerunner of a series of meetings to be held at regular intervals, and which, it is expected, will result in increasing the efficiency of the institutions. Dr. McCallum, Superintendent of the London Asylum, presided at both morning and afternoon sessions of the meeting. Before adjournment Hon. Mr. Hanna said that the reorganization in the method of managing the institutions, which would be carried out as speedily as possible, would result in the medical staffs being called upon to do very little or no clerical work. This evoked hearty applause, as the clerical duties now devolving upon many superintendents take away much of the time that should be given to the study of the varied cases coming under their care, and to wider medical research. The next meeting will be called by a provisional committee, of which Dr. Beemer, of Mimico Asylum, is secretary.

At the morning session Dr. McCallum, who presided, said that one question to be discussed and decided upon at a future gathering would be the advisability of appointing a Provincial pathologist, whose aim should be to trace the pathology of the diseases of idiots and degenerates, and give the benefit of his advice to the superintendents. There were over 6,000 unfortunates now in the care of the Province, and the growing number demanded close study of the causes of their condition. Insanity was, he said, traceable chiefly to three causes: alcohol, heredity and syphilis. Some countries, recognizing these causes, had passed most stringent laws with a view to prohibiting the marriage of persons tainted because of them. Dr. McCallum advocated a rigorous medical inspection, by men who knew degenerates when they saw them, of the flood of immigrants coming into the Province, so that undesirables could be turned back. Nor should the wholesale immigration of children of paupers and degenerates be encouraged. "Canada," he declared in conclusion, "is at

present a dumping ground for degenerates. Our neighbors to the south get them sent over here, where they are arrested, sent to our jails, and later to our asylums, to be maintained at the public expense. I know of several cases where that has been deliberately done, and we have no means of redress. We must guard against this."

Hon. Mr. Hanna, in a brief address, told the officials that, as in the past, they would continue to receive the hearty support and sympathy of the department in their work. He paid a tribute to Mr. Christie, who recently resigned his position as senior inspector of prisons and asylums. That gentleman's work had always been well done, and his connection with the service marked by the faithful discharge of his important duties.

Dr. W. N. Barnhardt, Toronto, read a paper in which he said that in regard to pathological work the Ontario asylums were about ten years behind the worst of those of the neighboring States. This was largely due to the generosity of United States legislatures, which enabled the carrying on of continuous medical research. Excellent work might be done by the present Ontario staff, if they were relieved of some of their non-medical duties, and aided by a central bureau for collating and recording the results and the encouragement of co-operative methods.

Varied opinions were expressed in the discussion that followed, the general opinion being that, while in some respects the Ontario asylums were ahead of similar institutions elsewhere, there was lots of room for improvement in respect to scientific research.

Dr. Campbell Meyers, Toronto, in a paper dealing with the prevention of insanity, held that the first step in prevention must be taken by providing better facilities for clinical instruction in functional nervous diseases, for the medical student—the future practitioner—under whose care such cases must inevitably first come. With this end in view, he advocated the establishment of wards, or a separate pavilion, in connection with general hospitals, for the treatment of the insane. The Toronto General Hospital trustees had offered for this purpose the use of the residence occupied by the late medical superintendent, undertaking its maintenance and the cost of the nurses, provided the Government would bear the expense of required changes to the building.

Mr. J. W. Flavelle, in reference to Dr. Meyers' concluding remarks, said the hospital trustees were ready to enter upon the work immediately, if the Government thought well to bear the cost of the change in the building. This they thought they could fairly ask, because the building would have to be abandoned in a few years, when the new hospital scheme was consummated.

A discussion brought out the general opinion that much could

be done in checking insanity, if proper educational facilities were afforded the coming practitioners.

On motion of Drs. Beemer and Mitchell, the plan advocated by Dr. Meyers was endorsed by the meeting.

Among those present from public institutions were: Dr. Clarke, the newly-appointed Superintendent of Toronto Asylum; Dr. Beaton, Orillia; Dr. Beemer, who is acting as secretary, and Dr. Forster, Mimico; Dr. Russell, Hamilton; Dr. McCallum, London; Dr. Hickey, Cobourg; Dr. Moore and Dr. Mitchell, Brockville; Drs. Ross and Gilmour, Toronto; Drs. Ryan and Herriman, of Kingston, and Mrs. O'Sullivan, Mercer Reformatory. Others in attendance were: Inspectors Armstrong, Rogers and Dr. Bruce Smith, of the Prisons and Asylums Department; Mr. J. W. Flavelle, Chairman of the General Hospital Board; Dr. W. Oldright, Dr. Campbell Meyers, Toronto.

Premier Whitney and Hon. Dr. Pyne were present for a short time.

During the afternoon the question, "What limitations should be placed upon the admittance of senile cases into asylums?" provoked considerable discussion, in the course of which several speakers expressed the opinion that such cases, where the patients were indigents, should be cared for at county poor-houses. Where such homes did not exist the municipalities should bear a portion of the expense of their care at the asylums. One doctor expressed the view that "the local physician cannot be trusted; it seems to be his aim to get the patient into the asylum by hook or crook." Another suggested the examination of senile patients by asylum physicians, who should report as to their fitness for entrance to asylums and the ability of the family or relatives to contribute to their maintenance there, or whether the cases were such as could be very well cared for at home. Mr. R. Christie, former senior inspector of asylums, during his remarks said that Ontario asylums in respect to general management and results were the equal of any similar institutions in the world. Finally the subject was left to be disposed of at a future meeting.

The question, "What regulations should govern the admittance of defectives and degenerates?" was also left over.

There was a long discussion on the question, "Under what conditions should the insane be admitted to jail?" Though satisfaction was expressed at the fact that there are now fewer insane in the jails than formerly, there is still room for a considerable improvement, particularly in regard to the commitment of lunatics to jails by warrant. A resolution was adopted recommending that the system of committing lunatics to jail by warrant be simplified, and that magistrates be instructed against committing alleged insane persons to jail when application for the admittance of the same to asylums has not been made.

The question, "How best to secure proper maintenance contributions?" was also left over. A resolution placing on record the appreciation of Mr. Christie's services in connection with the public institutions of the Province was passed unanimously and appropriately responded to by the gentleman named. Hon. Mr. Hanna was also warmly thanked for the interest he had displayed.

LAYING OF CORNER-STONE OF THE NEW HOMEWOOD RETREAT, GUELPH.—DR. STEPHEN LETT'S DEATH.

September 21st, 1905, was a red-letter day in the history of the Guelph sanitarium. It is some twenty-two years since the Homewood Retreat, as it was then called, was founded under the present directorate, with accommodation for sixty patients, but latterly it became obvious that if the demands made on the institution were to be met it would be necessary to make a large addition. This work is now in progress, and the corner-stone was laid on the above date in the presence of a large company of leading people of the city. The new building is 265 x 46, three stories high and a basement, capable of accommodating one hundred patients. Next summer another addition, 45 x 45, two and one-half stories, with basement, and a boiler house, 30 x 20, will be built, so that the work when completed at a cost of $100,000, will make the institution one of the best of its kind on the continent. The platform where the stone was laid was carpeted and decorated with red, white and blue, even to the derrick. Dr. Hobbs, superintendent, was appointed chairman. He called on Rev. S. E. Marshall, Norfolk Street Methodist Church, who offered an earnest prayer for Divine blessing on the staff and the promoters of the institution in ministering to the unfortunate.

The stone, which bore the figures "A.D. 1905," was laid by Hon. W. J. Hanna. Inside it contained copies of the *Globe, Mail, Guelph Mercury* and *Herald,* Hamilton papers and current coins. The trowel, which bore the inscription, "Presented to Hon. W. J. Hanna, Provincial Secretary, on the occasion of the laying of the corner-stone of the new building of the Homewood Sanitarium, Guelph, September 21st, 1905," was then presented to Mr. Hanna.

On account of the wind being so high the party adjourned to the beautiful sheltered lawn below the buildings, where a few short speeches were made. On the platform were Dr. Hobbs, Chairman; Messrs. J. W. Langmuir, R. Jaffray, Vice-President; E. Galley and F. Jarvis, Directors; J. M. Bond, Dr. Brock, County Crown Attorney Peterson, the Provincial Secretary and Mr. J. P. Downey, M.P.P.

Mr. Hanna expressed his pleasure at the honor conferred on him in being designated to lay the corner-stone. He referred to

the meeting of the heads of different asylums, held the day previous in Toronto, and the almost unanimous conclusion they had come to. He paid a special compliment to Mr. Langmuir, who had been publicly connected with this work since Confederation down to 1882, and also to Dr. Hobbs of the Sanitarium, and the directors, for their public-spiritedness in advancing such objects. Insanity was not a crime or a disgrace, but a disease, and had to be treated as such. Thirty years ago it would have been held a crime. He was glad this institution was doing a work which the Government could not afford to do, and he was pleased to understand the institution was self-supporting. The intention was to have the most modern improvements, the best treatment and accommodation.

Mr. Langmuir stated that it was an erroneous impression in the minds of many that these institutions were not under Government control. They were under the same control as any other asylum. He was conversant with the matter, having served under three administrations. He had always advocated the separation of a class which did not come under the scope of an asylum.

Mr. Peterson, Dr. Brock and Mr. J. P. Downey also spoke, and refreshments were served.

Dr. Stephen Lett, one of the founders of the Homewood Sanitarium, died at that institution on October 11th. He had been removed from the asylum at Kingston a few days before. The doctor was much respected in the city. In the fall of 1901 the doctor fell a victim to paresis. His strong constitution prolonged the inevitable ending for a longer period than usual, but he had been gradually weakening the past few weeks. Perhaps the main cause of Dr. Lett's breakdown was his courageous act in plunging into the icy waters of the river by the sanitarium to save a lad who had broken through the ice. The shock of the immersion came upon a system which had been weakened somewhat by close application and hard work, and no doubt contributed to the mental disease which made its effects apparent sometime afterwards. Deceased was a son of the late Rev. Stephen Lett, LL.D., D.D., of the County of Wicklow, Ireland, and later of Toronto and Collingwood, by his first wife, Harriette Samson, of Misterton, Lincolnshire, England. He was born at Callan, Kilkenny, Ireland, on April 4th, 1847, and was educated by private tuition and at Upper Canada College, Toronto. He became a member of the College of Physicians and Surgeons in 1870, and took his degrees at Toronto University—M.B. in 1878 and M.D. in 1879. He filled positions in the asylum service at Toronto and Hamilton, etc., and was a well-known militia officer during the Fenian troubles. Dr. Lett was married in 1874 to Annie, daughter of the late John McLeod, ex-M.P., Amherstburg, who survives, with a son, Kenyon Lett, and a daughter, Miss Frances Lett. Dr. Lett was buried in the family plot in Toronto on October 13th.

Items of Interest.

Handsome New Prescription Drug Store.—Mr. G. Francis Proctor has purchased the fine drug business—perhaps the finest in Toronto—on the corner of College Street and Dovercourt Road. Mr. Proctor, who is known as a very careful and capable dispenser, is devoting his whole time in this store. Physicians prescribing for their patients in the west end will find this place a thoroughly reliable pharmacy.

New Coroners.—The *Ontario Gazette* announced recently the following appointments as coroners: Dr. Forbes E. Godfrey, Mimico, for York; Dr. J. A. C. Evans, Stroud, for Simcoe; Dr. Wm. G. McKechnie, Marmora, and Dr. H. Alger, Stirling, for Hastings; Dr. George H. Ellis, Chesterville, for Stormont, Dundas and Glengarry; Dr. Wm. Glaister, Wellesley, for Waterloo; Dr. Hiram Wigle, Wiarton, for Bruce.

University of Toronto Faculty of Medicine.—The nineteenth session of the Faculty of Medicine of the University of Toronto was auspiciously opened on Tuesday, October 3rd. The opening lecture was delivered by Professor Victor C. Vaughan, Dean of the Faculty of Medicine of the University of Michigan, in the University Gymnasium, at 8.30 o'clock in the evening. Professor Vaughan's masterly address we give our readers in this issue.

Scopolamine, a new Anesthetic.—German papers report that a new anesthetic juice has recently been discovered in Japan, the product of a plant growing in that country. The anesthetic has been named scopolamine, and is said to be superior in its effects to all other articles of this kind. It is administered hypodermically and produces a deep sleep lasting from eight to nine hours. If the assertions concerning scopolamine are confirmed it will certainly be used in surgical operations, as it is claimed that it does not produce the slightest after-effects, which are always to be feared with anesthetics hitherto used.—*Health.*

Alterations to the Western Hospital.—Important alterations to the Western Hospital are in progress. The latest addition consists of a large building in the rear, which is now occupied by semi-private wards, but will in time be used entirely for laundry purposes. Two private houses have been purchased, which have

been made into a single building, containing twenty-eight private wards, to be used for a maternity home. Another new building, to cost $10,000, will be commenced almost immediately, to be used for the treatment of infectious diseases. In addition, the erection of another new wing to the hospital proper will be commenced next summer. The estimated cost is about $30,000.

Toronto General Hospital Nurses' Graduating Exercises.—The graduating exercises of the Toronto General Hospital for Nurses took place on Friday evening, October 20th. After the opening invocation by the Rev. W. G. Wallace, D.D., Mr. J. W. Flavelle, as Chairman of the Board of Trustees, delivered a short address, after which Miss Snively, Lady Superintendent, gave the annual report of the school. Dr. R. W. Bruce Smith delivered the address to the graduating class. The doctor quite distinguished himself, and is to be congratulated upon his efforts. We hope to give our readers the benefit of this paper in a later issue. The prizes were presented by Mayor Urquhart, and a most pleasant evening brought to a close by a dance in the Nurses' Wing.

Magnificent Donations to the New General Hospital.—Over $250,000 in one day from private sources for the building fund of the new Toronto General Hospital! This was the announcement given out one day recently after a conference between the Board of Trustees of the Toronto General Hospital, and a number of private citizens, held in the board room of the Canadian Bank of Commerce. As a result of the conference the following subscriptions were received: Hon. Geo. A. Cox, $100,000, the money to build a memorial wing in memory of the late Mrs. Cox; Mr. Timothy Eaton, $50,000; Mr. E. R. Wood, $25,000; Mr. E. B. Osler, M.P., $25,000; Mr. J. W. Flavelle, $25,000; Mr. H. D. Warren, $10,000; Mr. P. C. Larkin, $10,000; Mr. B. E. Walker, $10,000. Since the conference referred to, the following additional amounts have been subscribed: Estate H. A. Massey, $100,000; Mr. Frank Baillie, $5,000; Mr. W. R. Johnston, $5,000; Mr. Fred Nichols, $5,000; Lieut.-Col. Pellatt, $5,000; Mr. W. B. Hamilton, $2,000, making a grand total to date from all sources, $979,000. As an evidence of the broad spirit manifested by the donors, it is satisfactory to note that Mr. E. R. Wood is chairman of the trustees of Grace Hospital. It is expected that still further subscriptions will be announced very soon.

Dr. Reeve's Selection as President of the British Medical Association a Wise One.—In selecting Dr. Reeve as the president of the British Medical Association for that body's Canadian meeting next year, the members of his own profession have done well. They had abundance of material to choose from. They have

fixed upon one whose services to medical education have been conspicuous, and whose rank as Dean of the Medical Faculty naturally marks him out for a representative position. The high regard in which Dr. Reeve is held, both personally and professionally, rendered comparatively easy the delicate task of singling out from a large number of eminent physicians one who would officially represent them all when the delegates from Great Britain come here. While the meeting is a scientific one, and not a popular gathering, its president should have the qualities of a presiding officer as well as professional eminence. In both respects Dr. Reeve fully sustains the choice of his brethren.—*Evening News.*

Watch and Address Presented to the Secretary of The Leeming, Miles Company, Limited.—Mr. F. L. Benedict, on relinquishing the position of secretary of The Leeming, Miles Company, Limited, which he has occupied for a considerable length of time, was presented with a handsome gold watch and address by the management and employees. The presentation took place in the main office of the company, and Mr. Henry Miles, in making the presentation, referred to the capabilities of Mr. Benedict, as secretary of the firm. The company, he said, was sorry to lose the services of such a valuable employee, but, as Mr. Benedict was establishing himself in business, he could rely on the best wishes of the company for his future in the mercantile world. Mr. Benedict made a suitable reply, intimating that it was with a certain amount of regret that he was leaving the company. He would always think of his connection with the firm with pleasure, and heartily thanked those who had made him the recipient of such tangible evidence of their esteem.

X-Ray Photography.—Some physicians who have X-Ray apparatus do not realize the great value of photography for diagnosis and as a permanent record of their work. Fluoroscopic examinations are speedy and convenient, but for many purposes are not practicable; the location of foreign bodies and the diagnosis of calculi, biliary, renal, vesicle, etc., is never satisfactory with the fluoroscope; when negatives are made, all the time needed may be taken to determine the location and nature of the trouble. It is essential that the plates used for this work be especially prepared for the purpose by a reliable manufacturer, and the best plate to use is one which the test of time and experience has shown to be good. Dr. Mihran K. Kassabian says: "I have made skiagrams on Cramer's X-ray plates which show ten separate densities; this result could not have been obtained with ordinary plates." Dr. Kassabian has written a very interesting and valuable monograph on the proper use of X-ray apparatus for

photographic purposes, telling in detail how best to make the various positions required for different portions of the body, how to make negatives and handle the plates, etc. This monograph will be mailed free of charge on application to the G. Cramer Dry Plate Co., St. Louis, Mo.

Recent Facts Concerning Diphtheritic Antitoxin.—Comparatively speaking, it has been only a short period during which curative serums have been available for scientific observation. For this reason a number of misconceptions concerning them have gained credence. One of these faulty ideas is that antidiphtheritic serum must be fresh to insure its antitoxic potency and remedial reliability. This fallacious belief has been emphasized by the practice peculiar only to the three leading American industrial serum establishments of setting an arbitrary time limit and exchanging theoretically expired serums. By inference the physician has been led to believe that such expired serum is useless. An irrational demand for "fresh" serum has been stimulated. And because of the assurance of continued exchange, druggists and physicians have readily yielded to the temptation to overstock. A hardship to all interests has arisen, and the expense of maintaining the exchange system has reacted by necessarily increasing the cost of the serum. Of late, however, scientific investigators have systematically attacked the question of the depreciation of diphtheritic antitoxin, and facts are now available to replace obsolete theories. Roux, of the Pasteur Institute in Paris; Marx, of the Royal Institute for Experimental Therapy in Frankfort, Germany; Chiadini in Italy, and Miller in the United States, are among the authorities whose researches have engaged the problem of the life of antidiphtheritic serum. Tests and retests have been made in twelve to fifteen thousand lots of serum kept under all the conditions of laboratory and field antitoxin. All the conclusions concur in sanctioning a more extended time limit, and emphatic statements are made "*that the demand for fresh serum is not justifiable*," and that "*any mistrust of old serum is unfounded.*" The majority of serums show no appreciable diminution in antitoxic value in two, three, four and even five years. The maximum loss in the occasional serum, which *often occurs within the first year*, is 33⅓ per cent.—a loss fully compensated for by the practice of adding a precautionary excess, in vogue in the United States.

The Physician's Library.

BOOK REVIEWS.

The Principles and Practice of Medicine. Designed for the Use of Practitioners and Students of Medicine. By WILLIAM OSLER, M.D., Fellow of the Royal Society; Fellow of the Royal College of Physicians, London; Regius Professor of Medicine, Oxford Univ.; Hon. Professor of Medicine, Johns Hopkins University, Baltimore; formerly Professor of the Institute of Medicine, McGill University, Montreal, and Professor of Clinical Medicine in the University of Pennsylvania, Philadelphia. Sixth edition, thoroughly revised, from new plates. New York and London: D. Appleton & Co. 1905.

Dr. Osler is so well known as an authority in medicine that his work on the Practice of Medicine (sixth edition, rewritten and altered) may be regarded as the latest and best work of the kind for the use of practitioners and students of medicine. Having read several chapters of the work, in which gout, neuritis, syphilis, Mediterranean fever and tuberculosis are dealt with, we feel well satisfied with what we have perused. Dr. Osler is careful to confine himself to the known; in the *terra incognita* of medicine he does not roam. He is not a copyist; his individuality is clearly apparent. It would have been a source of gratification to Canadians if Dr. Osler, when occasion served, had said a good word for his native country; but in the section on the climatic treatment of tuberculosis recognition of the climatic advantages of Canada does not appear. Mention is made of Colorado, Arizona, New Mexico, as suitable high altitudes in the United States. Of resorts at a moderate altitude, Asheville and the Adirondacks are said to be the best known in America. No mention is made of Canada or any Canadian sanatorium for the treatment of tuberculosis. Now, there are climates in British Columbia just as favorable for the treatment of certain forms of tuberculosis as any in America or Europe. The climate of the Kamloops country (altitude, 4,500 feet) is superb, and it possesses the several elements proved to be of the greatest importance in the reconstruction of tissue and the restoration to health of persons suffering from consumption. The results obtained at

Gravenhurst (altitude, 750 feet) are favorable and deserve recognition.

The style of the writer is simple, direct, and free from verbosity. The book, which contains 1,143 pages, both for matter and style, deserves the cordial patronage of the medical profession. J. J. C.

Examination of the Urine. By G. A. de Santos Saxe, M.D., Pathologist to the Columbus Hospital, New York City. 12mo volume of 391 pages, fully illustrated, including 8 colored plates. Philadelphia, New York, London: W. B. Saunders & Company. 1904. Flexible leather, $1.50 net.

Dr. Saxe has presented a work on examination of the urine unusually complete, absolutely up-to-date, concise, yet explicit in all its parts; and it will be found to meet fully the requirements of the student and practitioner without burdening him with unnecessary analytic procedures. Special attention has been paid to the interpretation of findings as applied to clinical diagnosis, and the student is told what each chemical element and each microscopic structure means when found in the urine. The character of the urine in various diseases is also described in detail. Descriptions of technic have been made very explicit, and the author has inserted some new methods of working developed in his own experience. Cryoscopy and other means of functional diagnosis have been given their proper places. The text is fully illustrated, including eight colored plates of the various urinary crystals. The work will be useful because it is practical.

The Diagnostics of Internal Medicine. A Clinical Treatise upon the Recognized Principles of Medical Diagnosis, Prepared for the Use of Students and Practitioners of Medicine. By Glentworth Reeve Butler, Sc.D., M.D., Chief of the Second Medical Division, Methodist Episcopal Hospital; Attending Physician to Brooklyn Hospital; Consulting Physician to the Bushwick Central Hospital; Fellow of the New York Academy of Medicine, etc., etc. With five colored plates and two hundred and eighty-nine illustrations in the text. Second revised edition. New York and London: D. Appleton & Co. 1905.

The book of greatest value to the ordinary practitioner is the one written to assist him in his practical, clinical work. Such is Dr. Butler's "Diagnostics of Internal Medicine." It is divided into two parts, (1) The Evidences of Disease and (2) Diagnosis, Direct and Differential. In other words, it deals primarily with symptoms and their indications, and secondarily a study of diseases and their characteristics. "For example, if in Part I. it is

stated that the finding of a persistently rapid pulse may be explained by the presence of exophthalmic goitre, or of a dry tongue and an inordinate thirst, by diabetes, one can turn to Part II. and compare his case with the symptom group of the disease in question. Conversely, when in Part II. a high tension pulse is mentioned as a symptom of angina pectoris, or Kernig's sign of meningitis, a reference to Part I. will discover the method of estimating high tension or of eliciting Kernig's sign." It may be said that the book contains about all that is needful in the making of a diagnosis, very little, if any, having been overlooked.

Cleft Palate and Hare Lip. By W. Arbuthnot Lane, M.S., F.R.C.S., Surgeon to Guy's Hospital, and Senior Surgeon to the Hospital for Sick Children, Great Ormond Street. London: The Medical Company, Limited. 1905.

Mr. Lane's monograph is a *résumé* of various papers written by him on cleft palate and hare lip. A considerable portion of his essay is taken up with an interesting study of the factors influencing the growth of the naso-pharynx, of the mouth and of the bones that surround these cavities. Several figures illustrate the author's descriptions.

Mr. Lane takes issue with Treves, who expresses opinions as to the inoperable nature of cleft palate in the infant. Treves holds that it is never wise to operate for cleft palate under three years of age, "the time of election being from three up to six years." This is probably due to the fact that the death rate in cleft palate operations before the fourth month is about 50 per cent.

Mr. Lane holds that the best time for the operation is the day after birth, or as soon after that as possible, and he advances strong reasons for his opinion.

His operation is clearly described, and with the aid of the figures in the text, may be understood by the least skilled of surgeons. Mr. Lane's special instruments for his operation, gags, needles, needle-holder, cleft palate knife, and toothed forceps, are also exhibited in illustrations. J. J. C.

Introductory Physiology and Hygiene. By A. P. Knight, M.A., M.D., Professor of Physiology in Queen's University, Kingston. Toronto: The Copp, Clark Co.

To write a suitable text-book on this subject is no easy task, and Dr. Knight is the more to be congratulated on this excellent little work. It grew out of his lectures and practical lessons to the teachers-in-training in the Kingston Model School, and is intended as an aid to teachers in dealing with the new curriculum prescribed in this subject for the first four forms in our Public

Schools by the Department of Education. The latter august body is apparently somewhat wanting in common sense, or it would have been content with a somewhat more modest curriculum for children "in the fourth book." However, that is not the author's fault, and we have great hopes that the present Minister of Education will revise the curriculum. We must specially mention the admirable way in which the alcohol question is handled, chiefly by quoting a number of short, pithy, sensible remarks on the effect of alcohol from eminent authorities, whose decision on such a matter could hardly be questioned.

H. M'M.

The National Standard Dispensatory. Containing the Natural History, Chemistry, Pharmacy, Actions and Uses of Medicines, including those recognized in the Pharmacopeias of the United States, Great Britain and Germany, with numerous references to other Foreign Pharmacopeias. In accordance with the United States Pharmacopeia, 8th decennial revision of 1905 by authorization of the Convention. By Hobart Amory Hare, B.Sc., M.D., Professor of Therapeutics in the Jefferson Medical College, Philadelphia, Member of the Committee of Revision of the U. S. P.; Charles Caspari, Jr., Ph.G., Phar.D., Professor of Pharmacy in the Maryland College of Pharmacy, Baltimore, Member of the Committee of Revision of the U. S. P.; and Henry H. Rusby, M.D., Professor of Botany and Materia Medica in the College of Pharmacy of the City of New York, Member of the Committee of Revision of the U. S. P. Imperial octavo, 1,858 pages, 478 engravings. Cloth, $7.25, net; leather, $8.00, net. Thumb-index, 50 cents extra. Philadelphia and New York: Lea Brothers & Co., Publishers. 1905.

To practitioners of medicine and pharmacy this new work of the highest authority is of great importance. It contains, by authorization of the Convention, every article in the new edition of the U. S. Pharmacopeia, together with such explanatory notes and instructions as are necessary to a full understanding of the brief official statements. In addition it covers the essentials of the latest foreign pharmacopeias, and the very important domain of unofficial drugs and preparations so largely in use. Of its authors, Dr. Rusby has treated the department of pharmacognosy, including the minor as well as the major drugs of the entire globe, a service never before rendered; Prof. Caspari deals with pharmacy, giving full information regarding methods and products, with descriptions and explanations of the most approved apparatus and tests, and Dr. Hare has written the section on medical action and uses, giving a direct and compact presentation of modern therapeutics. An appendix of sixty pages contains

all necessary tables, formulas, tests, etc., for practical use. The general index, of about ninety pages, contains full reference to every page in the text, making it a repertory of the world's knowledge of drugs, and the therapeutical index, of about forty pages, contains, under the name of each disease, references to all the medicines employed in its treatment, leading the reader to the points in the text where the conditions indicating their employment and choice will be found. In a word, the "National Standard Dispensatory" is a new, practical and authoritative work, containing information on all substances used in medicine and pharmacy at the present day. The volume is embellished with no fewer than 478 new and instructive engravings in the text.

Practical Problems of Diet and Nutrition. By MAX EINHORN, M.D., Professor of Medicine at New York Post-Graduate Medical School and Hospital, and Visiting Physician to the German Hospital, New York. New York: William Wood & Co. 1905.

This is a neat booklet of 64 pages, being a collection of six lectures by the author, delivered at different times, on diet and nutrition. These lectures deal with faulty eating, diets in diseases of stomach and intestines, diet of dyspeptics and metabolism.

One of the most important lessons from these lectures is how to keep the normal amount of food and combat subnutrition. This is a very useful little volume and should be in every physician's library. W. J. W.

A Text-Book of Diseases of Women. By BARTON COOKE HIRST, M.D., Professor of Obstetrics in the University of Pennsylvania; Gynecologist to the Harvard, the Orthopedic, and the Philadelphia Hospitals. Second edition, rewritten and enlarged, with 701 illustrations, many of them in colors. Philadelphia and London: W. B. Saunders & Co. 1905. Canadian Agents: J. A. Carveth & Co., Limited, 434 Yonge St., Toronto.

A noticeable feature in Dr. Hirst's work on Gynecology is the profusion of illustrations, exhibiting instruments, diseases, the various steps in operations, etc., all aiding in the reinforcement of the text. Needless to say, this adds greatly to the value of the book. One should not infer, however, from this remark, that the author does not write plainly. Even if there were fewer pictures in his book, his opinions are so clearly put, that there would be no doubt about his meaning. He is evidently a gynecologist in extensive practice, a master of his subject, and fond of the use of the knife. His style is concise rather than diffuse,

a pardonable fault. This text-book should be very instructive to students, and most serviceable, likewise, to general practitioners who have occasion to do operative or palliative gynecological work.

The descriptions of modern operative technic are terse, clear, and most instructive, revealing the latest views of a successful operator. J. J. C.

The Doctor's Recreation Series. Chas. Wells Moulton, general editor. Vol. VIII. "Doctors of the Old School." Being Curiosities of Medicine and Ancient Practice. Arranged by Porter Davies, M.D. Chicago, Akron, O., and New York: The Saalfield Publishing Co. 1905.

To the younger generation of practitioners, perhaps more than to those who belong "to the old school," Vol. VIII. of this excellent series will prove keenly interesting. The editor has very evidently used a good deal of care in the collection of his matter. The volume will furnish food for thought, and be a source of amusement during the autumn evenings.

The illustration on the frontispiece of "William Harvey demonstrating to Charles I. his theory of the circulation of the blood," is very interesting.

The chapter, taken from an old copy of the *British Medical Journal*, entitled "Medical Accuracy of Charles Dickens," is one of the best of the thirty-five contained in this volume. Another, bearing the title, "Old Physicians," by Dr. J. Rutherford Russell, is worth reading, instructive, and highly interesting. The illustration, on page 74, of Edward Jenner inoculating a lad is a beautiful piece of press work. W. A. Y.

The Psychic Treatment of Nervous Disorders. By Dr. Paul Dubois, Professor of Neuropathology of the University of Berne. Translated and edited by Smith Ely Jelliffe, M.D., Ph.D., and William A. White, M.D. New York and London: Funk & Wagnalls Co.

This excellent work should be carefully read from cover to cover by every physician. The surgeon, as well, would find in it much for meditation. Professor Dubois is a psychologist, as well as a physician, and he explains clearly the intimate relationship existing between mental and physical disease. Why these two should ever have been separated is difficult to comprehend. Notwithstanding the work of Tuke, showing that mental disease is but brain disease with mental symptoms, a century has elapsed before any real recognition of the fact has been given to it by the general profession, with the result that medicine has suffered an immense loss meanwhile. The work of the last few years shows that this

chasm between mental diseases and general medicine is at last being rapidly spanned, and much of the advance in general medicine in the next few years will be due to the bridge thus formed. Every physician realizes the value of suggestion, but few have solved the question as to the exact details in which this suggestion is most beneficial and the *rationale* of it. This whole question is admirably discussed in the book before us, and the immense value of psychic treatment in nervous disorders is clearly shown. The sincerity in which the entire book is evidently written is very striking, and justifies what Professor Déférine says in the preface, in the language of Montaigne, "Here is a book of good faith."

The translators deserve much credit for the lucid manner in which they have done their work, and the publishers have left nothing to be desired. D. C. M.

Arneill's Epitome of Clinical Diagnosis and Uranalysis. A manual for Students and Practitioners. By James R. Arneill, A.B., M.D., Professor of Medicine and Clinical Medicine in the University of Colorado, Physician to the County Hospital and to St. Joseph's Hospital, Denver. In one 12mo volume of 244 pages, with 79 engravings and a colored plate. Cloth, $1.00 net. Philadelphia and New York: Lea Brothers & Co., Publishers. 1905.

This is the most complete and concise epitome we have seen on clinical diagnosis and uranalysis. It takes up all that is necessary for practical clinical work in the laboratory. The directions for the examination of blood, urine, stomach contents, feces and sputum are clear, practical and up-to-date. This little work will be invaluable to the student and busy practitioner. W. J. W.

Hyperemia as a Therapeutic Agent. By Professor Dr. August Bier, of the University of Bonn. Authorized translation. Edited by Dr. Gustavus M. Blech, Consulting Surgeon, People's Hospital, Chicago. With eleven illustrations. Chicago: A. Robertson. 1905.

The author makes a distinction between active hyperemia, which is caused by an increase in the amount of arterial blood flowing into a part, and passive hyperemia, which is caused by a diminished venous outflow. He states that hot air is the most useful agent, and that it produces the most active hyperemia.

In Chapter IV., the apparatus used in treatment with hot air is illustrated and described, and in Chapter V., the local and general effects of hot-air baths on the body are given in detail.

Passive hyperemia is produced by the rubber bandage, which is applied above the place to be rendered hyperemic, in several turns, covering each other, firmly enough to compress the weaker

walls of the veins, but not the stronger ones of the arteries. Hyperemia is also produced by the suction apparatus and by dry cupping.

Descriptions are given of the treatment by means of hyperemia of various diseases, such as acute and subacute arthritis, chronic stiff joints, different forms of acute inflammation, and tuberculosis.

This work opens up a field of therapeutics that is certainly new in this country, but at the same time it is a field that appears to promise good results, especially in the treatment of chronic diseases. A. E.

A Manual of Surgery. For Students and Practitioners. By Wm. Rose, M.B., B.S. Lond., F.R.C.S., Emeritus Professor of Surgery, King's College, London, and formerly Senior Surgeon to King's College Hospital, etc., and Albert Carless, M.S. Lond., F.R.C.S., Professor of Surgery in King's College and Surgeon to King's College Hospital, London; Examiner in Surgery to the Universities of Liverpool and Leeds, etc. Sixth edition, University Series. London: Bailliere, Tindall & Cox, 8 Henrietta Street, Covent Garden. 1905. Price, 21s., net, in cloth; 25s., leather.

It is but seven years since the first edition of this book was published, so that the authors have had to revise it almost once a year, so popular as a work of reference has it become. It is dedicated by the authors to Lord Lister, "in grateful acknowledgment of the many advantages they have derived whilst associated with him in his work at King's College Hospital." In the sixth edition the make-up is different, the page being considerably wider than that of the preceding volume. Professor Carless has added a great deal of new material to this edition, and at the same time has eliminated what has become antiquated. The department devoted to pathology and bacteriology is entirely rewritten and brought up-to-date. The application of radiography in diagnosis and therapeusis is dealt with fully; in fact, almost the entire volume is new, and well worth possessing.

Exercises and Demonstrations in Chemical and Physical Physiology. By Augustus D. Waller and W. Legge Symes. Being Part II. of "Exercises in Practical Physiology," by Augustus D. Waller, M.D., F.R.S. London, New York and Bombay: Longmans, Green & Co., 39 Paternoster Row. 1905.

These practical exercises deal with the chemistry and physics of blood, circulation, digestion, urine, and respiration, and are adapted for exact work in the laboratory. They are well planned, and the various steps in the experiments are plainly described. The illustrations are numerous and are well made. A. E.

The Archives of Physiological Therapy. Devoted to the Diagnostic and Therapeutic Uses of Electricity, Radiant Energy, Heat, Water, Mechanical Vibration, Dietary Regulation, Exercise, Psychic Suggestion, etc. Published monthly, with Illustrations. Boston: Richard G. Badger, The Gorham Press. By subscription, $3.00 a year.

This live journal is a new candidate for professional favor, the first issue having appeared in February of this year, and, judging by the initial number and those which have followed it, there is a career of great usefulness before this vigorous, handsome new-comer, whose appearance is very suggestive of the progress which physio-therapy is making as an exact science.

It is edited by Clarence Edward Skinner, M.D., LL.D., New Haven, Conn., in conjunction with a large and most capable body of associates scattered among the chief cities in the United States, as well as foreign correspondents in Paris, Bordeaux, Vienna, Frankfort-on-Main, Breslau, Budapest, Birmingham and London, which is a guaranty of its scope and worth, and an assurance that foreign, as well as home literature, will be carefully probed into for material suitable for abstracting, a feature to which much attention is devoted.

The original matter is also of a high character, such as might be expected from a journal of such a nature. The illustrations are also very commendable, and the whole get-up most attractive.

C. R. D.

A Text-Book of the Practice of Medicine. By James M. Anders, M.D., Ph.D., LL.D., Professor of Medicine and of Clinical Medicine at the Medico-Chirurgical College, Philadelphia. Seventh edition, revised and enlarged. Octavo of 1,297 pages, fully illustrated. Philadelphia and London: W. B. Saunders & Company. 1905. Cloth, $5.50, net; sheep or half-morocco, $6.50, net. Canadian agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

A sale of over 22,000 copies and the attainment of a seventh edition seems sufficient recommendation for any book; in fact, Anders' Practice does not now need any recommendation—it is too well known. As in the former editions, particular attention is bestowed upon inductive diagnosis, differential diagnosis, and treatment. Regarding differential diagnosis, we notice with much satisfaction that the many diagnostic tables of simulating diseases have been retained. The clinical value of these tabulated points of distinction is beyond cavil. Numerous new subjects have been introduced, among which are: Rocky Mountain Spotted Fever, Examination of Patients for Diagnosis of Diseases of the Stomach, Splanchnoptosis, Cammidge's Test for Glycerose in the Urine, and Myasthenia Gravis. Certain other individual

affections have been entirely rewritten, and important additions have been made to the diseases which prevail principally in tropical and subtropical regions. The seventh edition of Dr. Anders' Practice maintains the reputation of the work as one of the best books on practice before the profession to-day.

An Improved and Accurate Method of Staining Blood Films. Yonkers, N.Y.: The Palisade Mfg. Co.

This brochure is well worth sending for. It was recently published by the Palisade Mfg. Co., of Yonkers, N.Y. It is both ethical and scientific. The illustrations alone make it valuable. The publishers will gladly send it to any physician forwarding them his card.

Pamphlets Received.

"The Physician and the Sunday Question." By Dr. George Richter, St. Louis. Reprinted from *The Regular Medical Visitor*, August 15th, 1905.

"Ninth Annual Report of the Commissioner of Highways, Ontario, 1904." Printed by order of the Legislative Assembly of Ontario. Toronto: Printed and published by L. K. Cameron, Printer to the King's Most Excellent Majesty. 1905.

"Yellow Fever Institute Bulletin, No. 14." Treasury Department, U. S. Public Health and Marine Hospital Service. Walter Wyman, Surgeon-General. Report of Working Party No. 2, Yellow Fever Institute. "Experimental Studies in Yellow Fever and Malaria at Vera Cruz, Mexico," by M. J. Rosenau, Passed Assistant Surgeon; Herman B. Parker, Passed Assistant Surgeon; Edward Francis, Assistant Surgeon; George E. Beyer, Acting Assistant Surgeon. May, 1904. Washington: Government Printing Office.

"Twenty-eighth Annual Report of the Board of Health of the State of New Jersey, and Report of the Bureau of Vital Statistics, 1904." News Printing Co., State Printers, Paterson, New Jersey. 1905.

"A Contribution to the Therapy of Anti-Streptococcic Serum."—H. K. Mulford & Co., Philadelphia, recently published a brochure bearing this title, which is certainly a model piece of printing. The colored illustrations, showing laryngeal diphtheria, or so-called membranous croup, and nasal, post-pharyngeal and laryngeal diphtheria, are beautifully executed. The brochure may be had by any physician sending his card to the firm named.

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Original Contributions.

THE GROWTH AND ORGANIZATION OF THE MEDICAL PROFESSION IN NOVA SCOTIA.*

BY D. A. CAMPBELL, M.D., HALIFAX,

Mr. President and Gentlemen,—The first duty resting upon me is to thank you for the wholly undeserved distinction which you have conferred in choosing me to deliver one of the general addresses at this meeting of this Association.

I wish to apologize for my presumption in undertaking so serious a responsibility, feeling that local reasons, rather than any fitness on my part, must have counselled your request.

The subject upon which I shall endeavor to address you may be entitled "The Growth and Organization of the Medical Profession in Nova Scotia."

It was not without misgivings that I selected such a local topic, but I have been assured that there are ample precedents for such a course.

It may be confidently stated that there is at the present time a growing interest in the history of the medical profession in all its aspects. This may be regarded as part of the modern recognition of the important fact that no subject can be thoroughly studied and fully understood unless studied historically. Not only is this fact acted upon by the leaders of modern thought and the great teachers of the age, but it is becoming generally recognized by all thinking men that we must have some knowledge of the past to understand, really, the present,

*Read before Canadian Medical Association, Halifax, August, 1905.

and to make progress in the future. Every movement has its past history, its present struggles, its ideals for the future.

The satisfactory condition of the medical profession in this province to-day has not been attained without much effort and a long history.

The present standard of medical education is sufficiently high, and the average attainments of the rank and file of the profession satisfactory, so that everywhere the public can obtain the services of men capable of coping with the ordinary emergencies met with in practice. The members of the profession are respected, and exercise considerable influence in social and public affairs. In their organized capacity they enjoy self-government—a privilege which they have used for the public benefit, but have never abused. There are active and energetic associations for mutual improvement and protection. The grosser forms of quackery are not prevalent, and what may be called "medical heresies" are scarcely represented. It can be affirmed without exaggeration that the position of the profession in Nova Scotia compares favorably with that which obtains in other provinces of Canada or in the states of the American Union. Such a status for the profession has not been achieved except by the continuous struggles of many generations.

It is to the past, then, that we may now turn attention for the better understanding and appreciation of the present. And if, in doing so, I should seem to present much that belongs to general history rather than specially to medical history, my excuse is that it is desirable, if not essential, to note the general condition of the province and its population, at different periods, in order to see what field there was for the special work of the profession.

It is now just three centuries since the first European settlement was made in this region of North America, at Port Royal, now Annapolis Royal, in this province, which is thus the oldest continuous European settlement on this continent north of Florida. The settlement was really made and the colony established by Poutrincourt, under a grant from de Monts, who had arrived there the previous year, 1604, with a grant, from Henry IV. of France, of all the territory between the 40th and 46th parallels of latitude. The Acadia of the seventeenth century was thus a very wide region, including the present New Brunswick, and, indeed, for a long time, the name Nova Scotia was applied to the same region. Sieur de Monts made many and extensive explorations during the summer, crossed the Bay of Fundy, and established a settlement on the island of St. Croix. The colony of St. Croix suffered great hardships during the winter of 1604-5; and it is from that

settlement that we have the earliest account of anything of strictly medical interest in Acadia. That year Samuel de Champlain—a name illustrious in Canadian history—was with de Monts at St. Croix, and he has left a most interesting acccount of a serious malady which attacked the colonists. Here let me quote part of Champlain's narrative:

"During the winter, many of our company were attacked by a certain malady called the mal de la terre, otherwise scurvy, as I have since heard from learned men. There were produced in the mouths of those who had it great pieces of superfluous and drivelling flesh (causing extensive putrefaction), which got the upper hand to such an extent that scarcely anything but liquid could be taken. The teeth became very loose, and could be pulled out with the fingers without its causing them pain. The superfluous flesh was often cut out, which caused them to eject much blood through the mouth. Afterwards a violent pain seized their arms and legs, which remained swollen and very hard, all spotted as with flea bites; and they could not walk on account of the contraction of the muscles, so that they were almost without strength and suffered intolerable pains. They experienced pain also in the loins, stomach and bowels, had a very bad cough and short breath. In a word, they were in such a condition that the majority of them could not rise nor move and could not even be raised up on their feet without falling down in a swoon. So that out of seventy-nine, who composed our party, thirty-five died, and more than twenty were on the point of death. The majority of those who remained well also complained of slight pains and short breath. We were unable to find any remedy for these maladies. A post-mortem examination was made of several to investigate the cause of their malady.

"In the case of many, the interior parts were found mortified, such as the lungs, which were so changed that no natural fluid could be perceived in them. The spleen was serous and swollen. The liver was woody and spotted, without its natural color. The vena cava, superior and inferior, was filled with thick coagulated and black blood. The gall was tainted. Nevertheless, many arteries, in the middle as well as lower bowels, were found in a very good condition. In the case of some, incisions with a razor were made on the thigh where they had purple spots, whence there issued a very black, clotted blood. This is what was observed on the bodies of those infected with this malady. Those who continued sick were healed by spring, which commences in this country in May. That led us to believe that the change of season restored their health, rather than the remedies prescribed.

"During the winter all our liquors froze, except the Spanish wine. Cider was dispensed by the pound. The cause of this last was that there were no cellars under our store-houses, and that the air which entered by the cracks was sharper than that outside. We were obliged to use very bad water, and drink melted snow, as there were no springs nor brooks; for it was not possible to go to the mainland in consequence of the great pieces of ice drifted by the tide, which varies three fathoms between low and high water. Work on the hand mill was very fatiguing, since the most of us, having slept poorly, and suffering from insufficiency of fuel, which we could not obtain on account of the ice, had scarcely any strength, and also because we ate only salt meat and vegetables during the winter, which produced bad blood. The latter circumstance was, in my opinion, a partial cause of these dreadful maladies."

Thus it appears that three centuries ago the French surgeons who accompanied this expedition were impressed with the value of post-mortem examinations for determining the nature of disease, and that they at least suspected the causal connection between salt food and scurvy. And this latter view was confirmed by further observation. After the awful experiences of the first winter at St. Croix, the survivors moved to Port Royal. There were still fatal cases of scurvy. By the third winter affairs had greatly improved, owing, no doubt, to the fact that the colonists had taken to hunting and providing themselves with fresh food instead of salt. Champlain reports of this third winter:

"We spent the winter very pleasantly and fared generously, by means of the Ordre de Bon Temps, which I introduced. This all found useful for their health and more advantageous than all the medicines that could have been used. By the rules of the order a chain was put, with some ceremony, on the neck of one of the company, commissioning him for the day to go a-hunting. The next day it was conferred upon another, and thus, in succession, all exerted themselves to the utmost to see who would do the best and bring home the finest game."

In 1613 the colony of Port Royal was greatly injured by an expedition from Virginia; war between France and England followed; but upon the restoration of peace, in 1632, France was still permitted to hold Acadia.

The work of colonization was resumed under the auspices of the New Company of France; some sixty families of farmers, fishermen and artisans were brought over, settling first at La Have, and subsequently at Port Royal. Most of these came from districts on the west coast of France, where it was customary to protect the low-lying lands from the encroachment of the sea

by dykes, and they adopted the same method, with notable success, to reclaim the rich and extensive marshes about the Bay of Fundy, and soon made comfortable homes for themselves. The progress of colonization was long retarded by internal dissensions, and by strife between the rival claimants to the territory—France and England.

From the final cession of Acadia to Great Britain and the peace of Utrecht, in 1713, to the year 1749, when Halifax was founded, not the slightest effort was made in the direction of securing British settlers for Nova Scotia. France, by the retention of Cape Breton and the fortification of Louisburg, was enabled effectively to checkmate the plans of England. When war broke out between the two nations in 1744, the governor of Louisburg promptly sent an expedition to regain Nova Scotia. Canso was attacked and destroyed, and it was determined to capture Annapolis—which meant the capture of all Nova Scotia. This attempt failed, but it so exasperated the New England people that they resolved to secure possession of Louisburg. A scheme, planned by a lawyer and executed by a citizen commander, with an army of artisans, fishermen, farmers and lumbermen, snatched, by sheer audacity, from the grasp of France the great stronghold of Louisburg, defended by a garrison of veterans. At the close of the war, however, Louisburg, conquered by arms, was restored by diplomacy. A storm of indignation swept over New England, which had the effect of quickening a plan long cherished by the British government, of establishing a permanent settlement and strong military station on the Atlantic coast of Nova Scotia, as a counterpoise to Louisburg, and Halifax was founded in the early summer of 1749.

Halifax.

A fleet of transports, with 2,576 immigrants, of whom 1,546 were adult males, sailed for Chebucto Bay, under the command of Hon. Edward Cornwallis. New Englanders also came in considerable numbers, and contributed largely to the success of the undertaking. The plan of the town was quickly made, building lots were assigned to the settlers, and before winter closed in all were under shelter. A little later a German colony was planted at Lunenburg.

In 1758 Louisburg was captured by General Wolfe, and Quebec in 1759. With British rule thus assured immigrants from New England and elsewhere soon began to flow into the country and to occupy the fertile lands and the best fishing stations, so that by 1770 there was an estimated population of 13,000 in the Nova Scotia of that day.

During the progress of the war between England and the

revolted colonies of New England, many adherents of the Royal cause were driven from their homes and sought refuge in Nova Scotia. After the evacuation of Boston about two thousand refugees came to Halifax with the British forces. When the war closed large numbers of Loyalists withdrew from the United States, the greater part settling in Ontario and Nova Scotia. They consisted chiefly of the middle and upper classes, and were an intelligent and enterprising body of men of sterling character. They diffused themselves quite generally among the older colonists, and also laid the foundation of new settlements in widely scattered parts of the province.

Among the 2,500 settlers who came to found Halifax in 1749 there were twenty-eight medical men. Eleven of the number were accompanied by their families, which indicates that they, at least, came with the intention of staying in the country. All, probably, were army surgeons, thrown out of employment at the termination of the war with France, who were thus willing to accept a free trip to America and a grant of two hundred acres of land. How bitter must have been their disappointment when they beheld for the first time an unbroken expanse of forest, and realized that this was the home upon which they had based great hopes. Some found employment in connection with the hospital which had been established, but this did not last long, as the home authorities complained to Cornwallis that he supported too many surgeons and apothecaries. Only three out of the twenty-eight appear to have had the courage to face such a future. These remained with the other colonists, shared their hardships, and achieved some measure of success. The names of the three were Robert Grant, John Steele and Alexander Abercrombie. These were the pioneers in medicine in Halifax. Grant became a member of His Majesty's Council; Steele, a member of the House of Assembly; and Abercrombie, when he died twenty-eight years later, was deeply lamented, both for his medical skill and his benevolent disposition. The fate of the other twenty-five is unknown.

Only one physician accompanied the 1,500 German colonists who remained at Lunenburg, and it is uncertain whether he remained in the country. The New England and North of Ireland settlers, who came to the province prior to the Revolutionary War, were usually able to obtain medical aid. The missionaries, who regularly visited the sparsely settled and remote districts, had some medical knowledge. At some points the garrison surgeons looked after the sick. A few physicians came from New England and engaged in practice in the more thriving districts. Of these latter the professional knowledge

and skill may not have been great, but they were usually resolute, enterprising men, and useful members of the community in which they lived.

A large number of medical men accompanied the Loyalists. They were well qualified. The majority had served as surgeons during the war, and their influence in improving the status of the medical profession was marked, owing to their number, skill, and strong personality. In respect to the effect of the Revolutionary War on the fortunes of physicians and surgeons, Sabine remarks:

"The physicians who adhered to the Crown were numerous, and the proportion of Whigs in the profession of medicine was probably less than in either that of law or theology. But unlike persons of the latter callings, most of the physicians remained in the country and quietly pursued their business. There seems to have been an understanding that though pulpits should be closed, and litigation be suspended, the sick should not be deprived of their regular and freely chosen attendants. I have been surprised to find from verbal communications, and from various other sources, that while the 'Tory doctors' were as zealous and as fearless in the expression of their sentiments as Tory ministers and Tory lawyers, their persons and their property were generally respected, in towns and villages where little or no regard was paid to the bodies and estates of gentlemen of the robe and surplice. Some, however, were less fortunate, and the dealings of the Sons of Liberty were occasionally harsh and exceedingly vexatious. A few of the Loyalist physicians were banished; others, and these chiefly who became surgeons in the army or provincial corps, settled in Nova Scotia or New Brunswick, where they resumed practice."

I feel, sir, that this address bids fair to become too long, and there is still much ground to be covered. It seems desirable, therefore, that I should present the chief remaining facts of this subject in a summary form, and for this purpose it appears best to select certain important points, and to group the facts around those dates.

1749-1790.

The first date I have chosen is 1790, as we have an estimate of the population for that year. Prior to that date the population fluctuated very considerably; afterwards it steadily increased. The estimated population of Nova Scotia, in 1790, was about 35,000. The number of practitioners in the province at that time, as far as I have been able to ascertain, after considerable research, was thirty-five, a very large number when we consider the slender resources of the inhabitants and the limited extent of the settled area. The presence of so many

practitioners at that early period is explained by the circumstances that fully one-third of the number held permanent appointments in connection with the military establishments at Halifax, Windsor, Annapolis, Shelburne, and Sydney—appointments which they had received as a partial compensation of the losses they had sustained by the Revolution. Their official duties were light, and gave them ample time for general practice. After the founding of Halifax about nine-tenths of the physicians who came to Nova Scotia came from New England, and of the thirty-five practitioners in 1790 fully three-fourths were Loyalists. The latter did much to create that ingrained respect and loyalty towards the profession which is a characteristic of Nova Scotians, and this was accomplished by the individuality and force of character of those men as well as by their professional skill. The inscription on the tombstone of Dr. John Haliburton, in the old St. Paul's Cemetery, might not unfittingly be applied to each one of them:

> "If unshaken loyalty to his King, steady attachment to his friends, active benevolence to the destitute, and humble confidence in God can perpetuate his memory, he will not be forgotten."

1790-1828.

After 1790 no distinctive event stands out from which we can look back upon the growth of the profession until the year 1828, when an Act to regulate the practice of medicine was passed by the legislature. During this period of thirty-eight years the population had risen from 35,000 to 150,000—an increase largely due to an extensive immigration from the Highlands of Scotland. The older settlements had made substantial progress, and afforded an improved field for practice. The number of medical men had increased from 35 to 65; but the ratio to population had fallen from one in about 1,000 to one in about 2,300.

Two of those in practice in 1790 still survived—Jonathan Woodbury, of Annapolis, who came to the province as early as 1763, and Joseph Norman Bond, of Yarmouth, a veteran of the Revolutionary War, who enjoys the distinction of being the first medical man to perform vaccination in Nova Scotia. This was in 1802.

The additions to the ranks of the profession, during this period, were principally British graduates, who brought with them the traditions and customs of the profession in Great Britain. Many of them were retired army and navy surgeons, who had seen considerable service, and were accustomed to order, discipline, and regulations. Their personal influence

proved a potent factor in improving the status of the profession; their intimacy both with their comrades in active service and with the practitioners of the province became a means of diffusing throughout the country a knowledge of the advances and improvements in our art, at a time when communication was slow and uncertain and professional periodicals were still in the stage of infancy.

During this period a few medical men also come from the United States. About 1800, we note the appearance of native Nova Scotians, who had studied either in Great Britain or in the neighboring republic. Towards the close of this period there was a decided increase in the number of these. The first Nova Scotians were: Samuel Head, of Halifax, son of Dr. Michael Head, who came from Ireland to the province shortly after 1756; David B. Lynd, of Truro, a graduate of the University of Pennsylvania; Robert Bayard, of Cornwallis, a graduate of Edinburgh, better known in New Brunswick than in his native province; and W. B. Almon, of Halifax, also an M.D. of Edinburgh, and son of Dr. W. J. Almon, who first came to Halifax during the Revolutionary War. All of these were in practice in 1810.

The preamble to the Medical Act, and a subsequent amendment, point to the presence of a number of unqualified practitioners, especially in districts where medical aid could not be easily obtained. Many of these were men who had gained some knowledge, either through apprenticeship or a partial course at some college. Generally speaking, they were a deserving class, and should not be regarded in the same light as quacks and pretenders.

The early practitioners had to encounter many hardships and difficulties, except in the more populous districts. Many of the roads were mere bridle paths through the forest. Streams had to be forded. Water carriage, when available, was regarded as a boon. In the winter snowshoes were often necessary to complete a journey. Accommodation was very poor; domestic comforts were few; medical periodicals did not exist, and libraries were limited to a few volumes. The serious emergencies of a mixed practice had to be surmounted single-handed. Yet, in spite of all these disadvantages educated men toiled through long years, serving well their generation, and adding their quota to the slow but steady advancement of their profession.

Another point worthy of note is that, owing to the scarcity of educated laymen, and the absence of lawyers outside of Halifax, the doctors also rendered service to the public in the capacity of magistrates, judges of the Inferior Court of Com-

mon Pleas, prothonotaries, sheriffs, judges of probate, and they were frequently elected to the House of Assembly. This added to their labor and perhaps their income, and widened the sphere of their influence. It may be affirmed with justice that no other class gave more useful service to the public than the physicians; nor do the best men of the past suffer by comparison with the leaders of to-day; and they have left us patterns of humanity and energy well worthy of imitation.

1828-1854.

The next important step in the progress of the profession was the formation of the Medical Society of Nova Scotia in 1854. This association grew out of, or rather was an expansion of, the Medical Society of Halifax, which had been formed in 1844.

Between 1828 and 1854 the population had nearly doubled, chiefly through natural increase, and the number of practitioners had risen from 65 to 120. An analysis of the list of practitioners in 1854 indicates that more than one-half of them had been born in the province. Of the total number, 50 per cent. had been educated in the United States, 35 per cent. in Great Britain, and 17 per cent. were provincial licentiates. During this period the medical supply reached its lowest ebb, because but few practitioners came from abroad, and the cost of a complete medical education in a foreign country was greater than many Nova Scotians could afford. Quackery became prevalent and offensive. The petitions of medical men to the legislature had been disregarded, and the conviction became general that the only way to secure a remedy was by united action; hence the formation of the Medical Society of Nova Scotia.

1854-1872.

The next period, extending from 1854 to 1872, when a new Medical Act of great importance was secured, is characterized by a less rapid expansion of the population, owing to the fact that the era of emigration from the province had begun. But for the people who remained there was a better medical supply.

The new medical society soon made its influence felt. For some years its efforts were concentrated upon safe-guarding the interests of the profession and the promotion of measures to improve the public health. In 1856 the old Medical Act was amended, and new provisions were added to repress unqualified practice. A tariff of fees was framed; a code of ethics adopted; better remuneration for public services was secured; health legislation was improved, and an act for the collection of vital statistics was obtained.

The union of the provinces in 1867 widened the outlook of the profession; and the new order of things was promptly

signalized by the formation, that year, of this Canadian Medical Association. And here permit me to refer to the fact that the honor of first presiding over the deliberations of this important organization was accorded to a Nova Scotian, a gentleman of high standing in his profession, but one whose widely-recognized pre-eminence as a political leader and constructive statesman has caused his professional career to be almost forgotten—I refer, of course, to the Hon. Sir Charles Tupper. And I cannot omit mention of the second president of this association, also a Nova Scotian, and the ablest practitioner in the province, chosen for that place of honor because of his sterling character, public spirit and successful professional career, one who fortunately is still with us, an inspiring influence for all that is noble and good—I refer, of course, to the Hon. Dr. Parker.

In the same year, 1867, the Medical Society of Nova Scotia was reorganized. Up to that time the society had held all its meetings in Halifax. It was then decided to hold the annual meeting at different points in the province, with the view of securing the more hearty co-operation of members in the various parts of the country.

In 1867, also, a medical school was founded in Halifax in connection with Dalhousie College. At first nothing more than a short preparatory course, during the summer months, was aimed at. The venture met with success, and in 1870 it was decided to establish a full course of study and to confer degrees. This project encountered considerable opposition at first, and was not approved by the Medical Society. The supporters of the medical school took advantage of a strong and growing sentiment in the profession in favor of a more prolonged period of study than was required in the schools of the United States, from which the great majority of students obtained a qualification; and they took steps to secure the adoption of a new Medical Act, succeeding in 1872. The existence of a medical school within the province lessened materially the force of the objection raised in the legislature that the cost of a more prolonged period of study would restrict competition, and seriously affect the medical supply of the more sparsely settled districts. The propriety of founding a school at that time has been fully proved by the important part which it has played in promoting and maintaining a greatly improved system of medical education.

1872-1905.

Before considering the Medical Act of 1872, mention may be made of some minor events which have resulted in good. The Nova Scotia branch of the British Medical Association, formed in 1887, which meets at Halifax during the winter

months, and the Maritime Medical Association, formed in 1891, which holds its annual meetings alternately in the three capitals of the Maritime Provinces, have greatly promoted harmony and good feeling, as well as mutual improvement. The *Maritime Medical News*, founded in 1888, has been of material benefit to the various associations by preserving in an accessible form a record of their proceedings, and of their more valuable contributions.

The medical legislation in 1872 is of so much importance that I trust you will pardon me for giving an account of various steps leading to it. By medical legislation I mean, of course, enactments designed to regulate the study and practice of medicine, it being generally conceded that the state has full power in this respect. The basis of medical legislation is the necessity of affording protection to the people against ignorant persons and pretenders. The intention of such legislation is to secure a standard of professional education to be exacted of every one who is desirous of engaging in the practice of medicine, and such standard is obtained in various ways needless to specify.

The first step was taken while the military element in the profession predominated, and was perhaps suggested by the Medical Acts of Upper and Lower Canada. The Medical Act of 1828 is very brief, and is entitled "An Act to Exclude Ignorant and Unskilful Persons from the Practice of Physic and Surgery." Its substance is as follows: No person shall demand or recover any fee or award for medical or surgical aid unless he has a diploma from some college legally authorized to grant the same, or of having been examined in respect to his professional capacity by judges to be appointed by the Governor-in-Council. The Act being simple in character and adapted to the wants of that period, had some influence in restraining irregular practice, and it afforded partially instructed and deserving men already in practice a chance to obtain a legal qualification.

Next came the Act of 1856, promoted by the Medical Society of Nova Scotia. It provided for the registration of qualifications in the office of the Provincial Secretary. In addition to being unable to recover fees for services, unregistered persons were prohibited from holding provincial medical appointments, and were also liable to a fine of £5 for practising. Persons with defective qualifications could still become duly qualified by passing an examination before a board of examiners. This Act, like the previous one, was moderate in its provisions, and free from objectionable features. It remedied some defects which practical experience had shown to exist in the former measure.

The Act of 1872 conferred the privilege of self-government,

as its provisions secure to representatives of the profession full control of all matters relating to medical education, registration and discipline. The Act has since been frequently amended, but its essential features remain unchanged, and as they are similar to those of other provinces, further explanation is not necessary. But the composition of the governing body, and its policy in respect to some questions, demand brief consideration.

The profession as a whole is not incorporated in Nova Scotia, as it is in Ontario. The Act makes provision for a body corporate, called the "Provincial Medical Board," consisting of thirteen qualified medical practitioners, of not less than seven years' standing—seven to be appointed by the Governor-in-Council for life, and six to be elected triennially by the Medical Society of Nova Scotia. No other provision is made for collegiate representation, and there is no annual tax as in other provinces, the revenue being obtained wholly from examination and registration fees.

Until quite recently the requirements for registration differed in one important respect from those in other provinces, inasmuch as submission to a professional examination was not required from holders of diplomas from reputable schools, obtained after a sufficient course of study. Instead of examination the board insisted upon a rigid compliance with all its regulations relating to the preliminary examinations, period of study, and course of study—tests which effectually excluded applicants from schools of doubtful repute. This policy enabled the board, while maintaining the status of the profession, to keep an "open door" for licentiates from other provinces—a courtesy which so far has met with no reciprocal recognition. At the same time honest men from schools of good repute were spared "vexatious penalties of mind and body."

The principle of state examination was adopted a few years ago, not through conviction of its merits or necessity as a test of professional fitness, but from a desire to co-operate with other provinces in a general scheme of reciprocity. For the past three years an examination in the practical subjects has been demanded from all applicants for license, and the day is probably not far distant when the policy of the board, in this respect, will be adopted by other provinces, as it is now very generally recognized that medical boards and councils have not the requisite equipment, and can scarcely provide competent and independent examiners to conduct examinations in the scientific subjects on the lines of the more recent methods of instruction.

The Act of 1872 proved an important factor in causing a diversion of students from American to Canadian schools.

The ever-increasing proportion of Canadian graduates added

yearly to the Medical Register is a marked feature of this period and is worthy of special notice. An analysis of the Medical Register of 1875—thirty years ago—shows that of the whole number of practitioners, 78 per cent. were American graduates, 14 per cent. were British graduates, 2 per cent. were Canadian graduates, and 6 per cent. were Nova Scotia licentiates. A similar analysis of the Register of 1904-5 gives widely different results. Of the whole number, 53 per cent. were Canadian, 44 per cent. were American, and 3 per cent. were British graduates. The change in favor of Canadian schools is still more strikingly illustrated by an analysis of the additions to the Register from 1895 to 1904. Of the number added, 85.5 per cent. were Canadian, 14.2 per cent. were American, and 0.3 per cent. were British graduates. During the year 1904-5 the additions to the Register were exclusively Canadian graduates.

The predominance of the American graduates, numerically, has come to an end, but their influence, always exerted for good, will be felt for years to come; and it is pleasing to observe that the many evils which resulted from a lowering of the standard of medical education in the United States did not sensibly affect the status of the profession in Nova Scotia. This has been due in some measure to our geographical isolation, but chiefly to the circumstances that, from the earliest period down to the present time, the students from this province who went to the United States to obtain a qualification, have almost invariably selected the best schools in Boston, New York and Philadelphia.

The burden of maintaining and improving the status of our guild in this province, and throughout our great Dominion, is now fairly placed on the shoulders of Canadian graduates.

I fear, Mr. President and gentlemen, that I have rather overtaxed your patience, but trust that I have made it clear that our profession in this part of Canada has had a long and ever-widening history, and hope I have shown, by the citation of definite facts, that the profession in this province has, to say the very least, fully kept pace with the general progress of the country.

REPORTS ON TONGUE-LIKE ACCESSORY LOBES OF THE LIVER AND ACHYLIA GASTRICA.

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THIS malformation is also known as linguiform lobe, partial hepatoptosis, Riegel's lobe or appendicular lobe.

My attention was particularly directed to the malformation by an article read before this Association by Dr. Alex. McPhedran, of Toronto, at the meeting held in 1896, and published in the June number of the *Canadian Practitioner* of the same year. These accessory lobes were first noted by Hyrtl. Haller, Gruber and Cruveilhier afterwards described them. They are parenchymatous prolongations, and are thin round, or tongue-shaped in form, and variable in size. They usually rise from the inferior surface of the liver, and are connected to it by a pedicle containing "vasa aberrantia." The quadrate lobe is the seat of predilection.

Toldt and Zuckerkandl, of Vienna, wrote an article on them in 1875, describing their form and structure. Broca found them on both upper and lower surfaces in a microcephalic individual. Eichorst refers to malformations caused by tight lacing, and Frerichs, in his treatise on the liver, mentioned tongue-like processes due to malformation of the liver, in 1858.

H. Thompson, of Oxford, reported a case in 1885, and in 1889 he saw the processus caudatus separate in a fetus.

Cecil H. Leaf, of Guy's Hospital, London, says these processes are atavistic, because they are often present in monkeys.

These tongue-like lobes are often quite movable, are often discovered accidentally, and may not be accompanied by any bad effects. They may seriously complicate the differential diagnosis of abdominal tumors, or cause symptoms, closely simulating calculous cholecystitis, and floating kidney. They may be mistaken even after most careful examination, for omental tumor, tumor of the pylorus, distended gall-bladder, pancreatic cyst, or appendicitis. In connection with the latter I wish to report the following case:

Miss A., aged 16, while attending school in Dec., 1903, was taken suddenly with acute pain in the right side of the abdomen. In due time she made a partial recovery, but the soreness remained, with indigestion, and a general feeling of ill-health. I saw her first in April, 1904, and after a careful examination, not having discovered any evidence of an abdominal tumor, diagnosed chronic

appendicitis of a mild type. I prescribed rest, proper diet, and intestinal antiseptics. She slowly improved, but her digestion was faulty, with some neurasthenia. In November, 1904, I performed an appendectomy, making a McBurney incision. On introducing my finger into the abdominal cavity, I felt what I at first thought was a dislocated kidney. Having extended the incision upwards, I brought to view a tongue-like process, two inches wide and three-fourths of an inch thick. It ascended and descended with the respiratory movements, and, having looked at it carefully, I knew without any doubt it was a tongue-like process having its origin from the right lobe of the liver. I had a long and tedious hunt for the appendix, as I found the transverse colon was prolapsed, and down in the right iliac fossa, and which very much complicated the search. Having found the appendix, I removed it, as it exhibited signs of having been inflamed. The patient made an uneventful recovery, and has improved so much in health and appearance that I failed to recognize her about a month ago. As there is slight ptosis of stomach, she still complains of some indistinct symptoms and slight uneasiness in the region of the incision.

I do not think that this abnormality of the liver is of frequent occurrence, as I have never before met it in any abdominal section I have done or been present at. Its occurrence in so young a person excludes tight lacing as a cause.

As the malformation is met with mostly in those of mature years, its occurrence in this young girl adds interest to the case. I wish to acknowledge my obligations to my friend, Dr. Basil Harvey, Instructor of Anatomy in Chicago University, for his assistance in furnishing me with the history of this malformation.

I wish to report the following interesting case of achylia gastrica, or atrophy of the stomach. It is a terminal of chronic gastritis, but is most frequently met with in carcinoma of the stomach. Riegel, in Nothnagel's Practice, says that total atrophy of the gastric glands may lead to serious disturbances of the general health, but that it has been demonstrated that a complete loss of peptic power may be tolerated for many years, without impairment of the general health, provided the motor power of the stomach remains intact, and the intestine can vicariously assume the functions of the stomach.

Mrs. M., married, aged 46 years, mother of one child, was first seen by me in August, 1903. I found her thin, pale and complaining of indigestion. She informed me that she had trouble with her stomach for the past five years, that she had little desire for food, vomited a greenish fluid frequently, and had at times considerable pain in the region of the stomach. On examination, I found the abdominal muscles tense and on guard, and that pressure over the stomach produced pain. She had, five years before,

an attack of mucous colitis, which lasted for several months. I prescribed various remedies and diets, without much benefit. In November, of 1903, I began lavage of the stomach, which, for a while, seemed to afford some relief. This was continued for months, but occasionally she would vomit quantities of the greenish fluid, which failed to give the reactions for bile. In August, 1904, she became worse and refused to eat, and I began giving nutrient enemata. These soon disagreed, and she asked for their discontinuance. I called in Dr. F. R. Eccles, of London, and, like myself, he thought she had cancer of the back wall of the stomach. There was now great emaciation, hardness of the muscles and absence of any tumor on palpation. I may say examination of the stomach contents showed absence of hydrochloric acid, but Uffelman's test gave lactic acid reaction. Microscopically yeast cells and micrococci were found, and I thought I discovered the Oppler-Boas bacillus. She died of starvation on October 21st.

Sectio cadaveris, four hours after death, made by Dr. Wm. Reid: Body greatly emaciated, no fat in the abdominal walls, nor epiploon, which looked like a net. The liver, gall-bladder and pancreas showed no sign of disease. The stomach was atrophied and in size no larger than the duodenum. There was no infiltration or enlargement of the mesenteric glands, and the walls of the stomach on section were found silently thickened, the gastric mucosa was very red, and had a velvety look. The stomach was empty and its capacity would not exceed four ounces. The cardiac orifice admitted my finger. The pylorus was almost closed, admitting the tip of my little finger, which is rather small, on using considerable pressure. The transverse colon for about ten inches was atrophied and its walls thickened, being about three-fourths of an inch in diameter. This was probably caused by the mucous colitis. While the walls of the stomach were sclerosed, I found no distinct evidence of cancer, and registered the cause of death as achylia gastrica. This condition of atrophy of the gastric mucosa is said by Riegel to be by no means so rare as is ordinarily believed.

Medical Jurisprudence and Toxicology.

IN CHARGE OF
A. J. JOHNSON, M.B., M.R.C.S. (Eng.).
W. A. YOUNG, M.D., L.R.C.P. (Lond.).

THE MEDICO-LEGAL ASPECT AND CRIMINAL PROCEDURE IN THE POISON CASES OF THE SIXTEENTH CENTURY.

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In the long chain of history one is constantly meeting mysterious deaths seizing vigorous people in robust health. The subjects usually occupy some high position, and disappear just at the time when their presence becomes an obstacle to an heir or a competitor. One immediately has the feeling that all these deaths are merely instances of homicide, although there are no absolute proofs in favor of this hypothesis. Blood was not shed, the sword leaves no trace, nobody saw the assassin accomplish his crime and, nevertheless, general opinion refuses to believe that all these victims died natural deaths. They designate certain people by the terrible and detested name of poisoner. In point of fact poison has played a great part in history and was a much too convenient arm to be left aside, and it is always found in the hands of those who, devoured by ambition, had not the courage to end their desire by the price of an outright murder. The latter had the misfortune of leaving some trace behind, which sooner or later would denounce the culprit, while poison would only leave a doubt as to the true nature of death, and, for this reason, in all times it was employed in order to avoid intrigue. Poison was the arm of the aristocracy and kings did not disdain it, so that an example starting from so high a source was naturally followed by the courtiers in the first place and the people afterwards.

The true home of poison was the Orient, and the princes of Asia, tired of bloody spectacles, searched for new voluptuousness by witnessing the effects of poison given to their slaves, and consequently the history of Asia represents a long chain of dramas from death by poisoning. From the Orient this method came to Greece, but without making much impression there, because

the loyalty of these people made them repugnant to such crimes, and they reserved poison for those they wished to put to death legally. In imperial Rome things were not the same, and the then reigning conditions represented an essentially favorable midst for the development of homicide by poisoning, and such instances rapidly became numerous. During the Middle Ages this crime appeared to be rare in France. This, however, does not mean that poisons were not known, because their use has never been forgotten, but they were hardly employed anywhere but at the Court and by high personages. Among the people sorcerers were the only ones to resort to their use, and the ointments that they prepared only occasionally resulted in accidental death.

Suddenly, without hardly any transition, the Renaissance came to light. The Italians invaded France, giving this country all the great advances that the former had made in the culture of arts and sciences, but, at the same time, they brought with them their deplorable morals. Sensual and artistic, the princes of the Italian Court and by high personages. Among the people sorcerers grossness of the sword, which struck too openly, they preferred poison, which slowly infiltrated the veins and killed the strongest in the midst of feasts and fetes, without the loss of a drop of blood. They taught to France the most refined means of ridding those who came in the way, and they sowed all the advantages derived from mineral poisons, and taught the secret of the fearful poisonous compositions.

Catherine de Medicis arrived at the Court of France, followed by a band of devoted Italian courtiers who would obey any order, no matter what its nature, that she might give. She belonged to a family who had become sadly celebrated by the innumerable forfeits that it accomplished and especially by its murders from poison. At the Court she continued the traditions of her ancestors with the aid of the Florentine Rene, who furnished her all the necessary poisons for the accomplishment of her designs. All the high positions were occupied by Italians, who brought the customs of their country into use. Poison was immediately chosen as one of the most suitable arms, all the more so as it assured impunity to the culprit.

In point of fact physicians were at this time unable to recognize its traces in the cadaver, and autopsies only gave very vague information, while experimental researches had not as yet given the medical profession its precious concourse. Medical men occasionally were able to establish the reality of a death by poison, but they hesitated to announce the fact, because the discovery of the criminal might bring the hatred of some high personage upon them, whose influence was necessary. It was among the aristocracy that the poisoning habit first developed, and the Court adopted this means with eagerness so that the judgment that Tremoille

handed down regarding it was never so true as during the Renaissance, which represented a combination of greatness and baseness. "The court is an ambitious humility, a lubric chastity, a furious moderation, a tiresome love, a corrupted justice, a hungry abundance, a miserable highness, a state without security, a contempt of virtue, an exaltation of vice, a dying life and a living death; the highest are in greater danger than the lowly, because Fortune does not smile upon the security of the great."

From the Court poisoning reached Paris, and the nobles imported this crime into the provinces, but it is not probable that it penetrated into the country, and it is more likely that the peasants, as at the present time, used their natural arms to settle their quarrels without having recourse to these complicated procedures.

What was the role played by the physician in cases of poisoning, what means had he in his possession to detect the trace of poison, and what help could the medical art give to justice in the sixteenth century, are questions which are most interesting to solve, because it was at this time that forensic medicine was created. It was to the genius of Ambroise Pare and his students, Cardan and Porta, that this science was brought out from obscurity and the immense service that it has since rendered to justice is well known. It had not at that time all those means of investigation which it to-day possesses, but one is obliged to admit that it acquired a very rapid development, and that from its very commencement it was attentively followed by the legal profession. Without attaining the proportions that it reached during the following century, homicide by poison had become sufficiently frequent for justice to become disturbed, and it formulated special laws and punishments. Jousse, in his "Traite de la Justice Criminelle en France," published at Paris in 1771, tells us that the judges understood by the word poison "all drugs or chemical preparations capable of giving rise to death," and by poisoners, "those who employed such means for killing other people." Love philters and abortive drinks were not considered, properly speaking, as poison, but they entered under this head when they caused the death of people to whom they had been given.

This definition having been established, let us consider how the criminal procedure at this epoch was carried out. When a person in perfect health was suddenly stricken by illness, especially when this occurred after a repast, opinion was never wanting to attribute the death as the result of a crime. As traces of violence could never be detected, these deaths were immediately placed in the long list of the poison dramas. The news circulated from mouth to mouth, and the criminal was not long in being indicated under breath. In possession of these suspicions, justice

immediately commenced an inquest and its first act was to designate the physician to examine the victim.

One of two cases were then presented; there had been only a simple attempt and the person to be examined was living and could himself give all the necessary knowledge to the physician, or, on the other hand, the victim had died and an autopsy alone could verify or destroy all suspicion of poisoning. In the former case the physician based his opinion on the symptoms of poisoning, which, according to Ambroise Pare, were the following: "We recognize that a man has been poisoned, no matter in what way, when he complains of a great weight throughout the body, which makes him displeasing to himself; when the stomach gives him some horrible taste in the mouth, entirely different from that derived from ordinary meat, no matter how bad it may be; when the color of the face changes, being either livid or yellow, or any other strange tint and deformed; when he complains of nausea and the desire to vomit; when he is possessed of an uneasiness of the entire body and it seems that everything about him is turned upside down; when, without appearance of great or marked heat or cold, the patient falls from heart weakness, accompanied by a cold sweat." To these symptoms, which were always observed, other particular signs were noted with each kind of poison, which sometimes allowed the diagnosis of the substance given to be made. Besides, the physician found a precious auxiliary in the examination of the vomited matter, but, at this epoch, chemical research being unknown, this examination was merely an illusion. This can readily be seen, because it would be very difficult to recognize the nature of a poison by the color and odor of the stomach contents, but nevertheless physicians could establish the reality of death by poisoning by the procedures that we have mentioned, which at this time were the only ones that could be utilized.

When the victims had died an autopsy was performed, and if the body was livid, covered with spots, exhaling a very bad odor, with black nails which were hardly attached to the fingers, with foam at the mouth, there were already very strong presumptions in favor of death by poison.

If examination of the interior of the body revealed indication of corrosions in the esophagus or stomach, black spots in the intestine and congealed blood around the heart or in the stomach, there was no longer any doubt, so that the hypothesis was fully confirmed. If the poison was found in any of the organs it was sometimes experimented with on animals. All these means were extremely meagre with which to make a serious accusation on, but physicians of the sixteenth century could not do more than what the progress of science had up to that time taught them. Toxi-

cology was, at this epoch, absolutely unknown, and it was only later, under the influence of all the serious cases of death by poison that it was finally built upon a solid basis.

When in possession of these facts the physician wrote out a report which was handed over to the courts, and, as an example of one of these, I here translate one given by Ambroise Pare in his work: "M. de Castellan, physician in ordinary to the king, and Master Jean d'Amboise, surgeon in ordinary to the king, and myself, were sent to open the body of a certain personage that one suspected of having been poisoned, because, before having supped he had not complained of any pain. And soon after supper he complained of a severe pain in the stomach, crying out that he was suffocating, and the entire body became yellow and swollen, he was unable to breathe and panted like a dog who had run a long distance; because the diaphragm (the principal instrument for the respiration) being unable to have its natural movement redoubled its energy and thus increased the respiration and expiration; then he had vertigo, spasm and failing of the heart and consequently death. Now, in truth in the morning we were shown a dead body, which was greatly swollen, just like a sheep that had been blown up for the purpose of skinning. The said d'Amboise made the first incision, while I withdrew behind, knowing that a cadaverous and stinking exhalation would come out, this which did occur, and which all those present could hardly endure; the intestine and generally all the internal parts were blown out and filled with air; and thus we found a large quantity of blood which had escaped into the entrails and the cavity of the thorax, and it was concluded that the said personage might have met his death by poisoning."

I will now give another medico-legal report, although it was written much later, because it shows to greater advantage than the preceding one, which in reality is merely a simple recital of an autopsy, how these reports were made out. I translate it from "Doctrine des rappors de chirurgie," by Nicholas de Blegny, published at Lyons in 1684:

"Reported by us, master surgeons sworn, in the City and jurisdiction of Lyons, that this day, September 18, 1682, in execution of the ordinance of the Lieutenant-Governor, we went to rue des Landes, in a house which bears an ensign the image of Saint Margaret, in order to visit the dead body of Suzanne Pernet, a sworn matron, having found all the external parts in their natural position, we then proceeded to the opening of her body in the presence of Master Claude du Pradel, doctor of medicine, appointed to the place by the Lieutenant-Governor; and having commenced by the abdomen and afterwards opened the stomach we found it completely cauterized in its fundus, which contained

a black, sandy liquid in quantity about as much as an eggful, which, having been placed by us in a metal vessel, stained it, as would be done by acid and corrosive liquids, and which, having been given in a small quantity to a dog, acted on him severely, as we were able to recognize by his cries and howling, all of which made us consider that the said Pernet had been poisoned by arsenic or sublimate, or other such corrosive poisons of the mineral gender; in which we were all the more confirmed by the excellent condition of all the other internal parts, as much in the abdomen as in the chest and head, which we had likewise opened and where we found no cause for death, all of which we certify as true in faith of which we have, with the said Master du Pradel, signed the present report, in order that it may serve whom it may concern. At Lyons, the day and year above mentioned."

From these examples of medico-legal reports it at once becomes evident how little knowledge was gained by autopsies. The doubt still remained in suspense and this is quite enough to explain the real reasons for the great number of deaths by poisoning in the 16th and 17th centuries. The accused, in spite of most serious presumptions, always was hopeful of escape from death, because his guilt was always a matter of doubt and the charges accumulated against him rarely resulted in an absolute certitude of his guilt. For this reason it was not until toxicologic researches had been carried out that the development of this form of crime could be stopped, which at the present time is one of the least frequent causes of criminal homicide. Arsenic, which was then the king of poisons, has since been almost completely given up by criminals, because toxicology allows one to discover the most infinite traces in the cadaver of the victim.

The penalties applied to poisoners varied according to the country, but in general these criminals were condemned to death and the type of execution only varied according to the local customs. It is to be remarked in the first place that in most instances the crime was committed by women, which is easily explained because on account of the weakness of their sex they could not revenge themselves by the use of arms. The poison was a hidden arm, striking with certitude and which perfectly fulfilled the natural dissimulation of their sex. Consequently one continually finds in the law texts of the epoch a distinction between the penalty applied to women and that to which men were subjected. According to the Caroline Constitution, Article 130, he who attempted to take the life of another person by poison was condemned to death. If the criminal was a man he died on the wheel, like a vulgar assassin, while if it was a woman she was thrown into the water. It was also specified that criminals should be dragged to the place of execution and that before this

took place they should be more or less subjected to hot irons, according to their condition and the circumstances of the crime. The penalty of death was also inflicted on poisoners in France, while the type of execution varied according to the circumstances and also to the local customs. Sometimes they were convicted and sentenced to be burned. The closer the degree of relationship existing between the accused and the victim also came into consideration when making the sentence, and a son who poisoned his father or his mother was punished as a parricide, and parents who poisoned their children or wives their husbands entered under the same class.

The law established distinctions between those who sold the poison and those who administered it, and in the same sense it did not inflict the same sentence on those who had caused the death of their victim and those who had simply committed a mere attempt. All these laws are to be found exposed in Farinacius and we will here translate them as given by Jousse.

"It is, however, necessary to observe respecting those who prepare or distribute poisons for the purpose of poisoning somebody, or who buy poison with the same intention, that they should not be punished by the sentence of death only when they reduce their design in act, by doing something which may tend to cause death; and in this respect to those who sell and distribute it, knowing the use that one will make, they should not be punished with the ordinary laws applicable to poison, only when the design of him who wished to poison has been placed in execution and followed by death, otherwise they should be punished by a lighter sentence (Menochius)."

"If he who has bought, composed or prepared poison, in order to poison somebody, has not put his design into execution, because he has been prevented, he should not be punished by the sentence of death, but only by a less severe punishment according to the circumstances and the quality of the person."

"For a still more evident reason, this should also be applicable when the case is one where repentance prevented the criminal from executing his design, and in the second case the punishment should be still less than in the preceding case."

Such were the legal dispositions relating to poisoning followed by death and in cases of simple attempt at poisoning. Physicians, apothecaries, veterinarians and in general all people who, from their business, kept toxic substances, were allowed to sell them, but before giving them to a buyer, they were expected to inquire as to the honesty of their client and the use to which he intended to put them. If these precautions were not taken and death followed, he who sold the poison was brought to trial in nearly the same capacity as the one who had administered it,

and in many cases he was condemned to undergo the same sentence. Justice also applied laws to those who had committed multiple murders by poison, and the following are, according to Farinacius, the penalties that were applied to them. "Relative to those who poison the water of a well, or a fountain, in order to kill those who may drink at these places, they should be punished as homicides; and this should not suffer any difficulty in application, when somebody has drunk the water from this well, or from this fountain, and which has caused death. But, if this occurred accidentally, it appears that the accused should not be punished by a death sentence, but only by some other arbitrary sentence."

As a conclusion to all that we have said relative to the laws applicable to criminal poisoners, I would quote the two following judgments rendered by the courts. By a judgment handed down July 15, 1585, and related by Imbert in his "Institutiones forenses," a young woman of Paris, named Marie Lejuge, daughter of a merchant in the same city, was hung and burned for having poisoned her husband, this act resulting from a blow that he had given her. In another decision handed down by the criminal court of Orleans on September 12, 1602, a young woman 14 years of age was convicted of poisoning her husband, who died, and she was condemned to be hung, her body and her ashes thrown to the winds. She had administered arsenic in milk to her husband after having been seduced by the cure of the place. The cure's servant having been convicted for preparing the arsenic was, on Saturday, September 26th, of the same year, condemned to be hung by the decision of the court, and was executed in the Place du Martroi d'Orleans, on Monday, October 26th, in the same year. Curate condemned for incest with this young woman, his parishioner, was condemned to be burned alive and the decision was executed at once.

I can hardly terminate this paper without making a few remarks relative to the legislation governing love philters and abortive drinks, the following being the article of the Canon law relative to this question: "Those who give an abortive drink, or a love philter, even although they may cause no harm, but simply from the fact that such actions are a bad example, the culprits shall be condemned to the mines when they belong to the lower classes, while in the case of nobles there will be confiscation of one-half of their worldly goods and they shall be exiled to an island; but, if from their fault, the woman or man shall have perished, they are to undergo the severest sentence."

This text is exceedingly obscure and lends itself to several interpretations. In the first place, what does it mean by man or woman? The first hypothesis that may be admitted is that

the term man applies to an animated fœtus, which, from this fact, was morally considered as a living individual, and from this it becomes evident that the word woman was used to designate the mother of the said fœtus; or else the woman corresponds to the abortive drink and man to the love philter.

Far be it from my intention to even endeavor to in any way settle this question, but it would appear to me that the last hypothesis is probably the most plausible. Now, in point of fact, the article includes two different things, namely, the love philter and the abortive drink. Relative to the latter there can be no doubt, because it could only be destined for women. As to the second it was used in the male sex as well as in the female, but the construction of the article very probably only considered those cases where it was administered to a male subject. There is to be found in stated succession those who administer an abortive drink or a love philter, and further on, "if from this fact the woman or man shall have perished;" these terms appear to well establish a near relationship between the abortive drink and the female on the one hand and between the love philter and man on the other. However this may be, I consider, with Jousse, that there was not, properly speaking, any special legislation applicable to these particular crimes. Those who employed them sufficiently maladroitly to bring about death were considered guilty of homicide and were punished as such. The sentence was considerably increased when malice aforethought was added to the administration of a love philter. In the great majority of cases, however, the courts were rarely called upon to try these cases, because philters rarely gave rise to death. Drinks given to produce sleep, or cause sterile women to conceive were assimilated to philters.—*Medico-Legal Journal, New York.*

Selected Articles.

SUPERIORITY OF LIQUID MEDICINES OVER ALKALOIDS.

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CURATION of disease is a problem which is constantly confronting the practitioner of medicine. Among the multitudinous duties of mankind there are none that are so complex as those which fall to the lot of the physician.

The mechanism of man is a wonderful network of complicated organs; all striving toward a common goal—the health and strength of its various tissues. While anatomy is essential to the understanding of the structure, physiology is no less important in aiding us to comprehend the action of its component parts. Physiology, then, plays a large part in the practice of the successful medical man.

It teaches us that all nutrition is supplied to the body through the medium of the blood; that this nutriment is conveyed to the blood, and the parts needing renewal, by means of endosmosis and exosmosis; that it is necessary for this nourishing pabulum to be in a liquid state before these exchanges can take place.

Experimentation has demonstrated that liquids are much more promptly absorbed than articles of a semi-fluid or more compact nature. Hence the first point of the superiority of liquids over the alkaloids is the fact that they are absorbed with greater rapidity, and thus their beneficent action is commenced more quickly.

The action of the liquids is more gentle, because, as a rule, they are less powerful than the alkaloids which are extracted by means of chemical manipulation from the various fluid preparations that yield the alkaloidal principles.

All who are familiar with the workings of nature know, and must admit, that the more gentle the process the more lasting and complete is the result obtained. The constant dripping of water, drop by drop, will wear away the hardest substance over which violent measures, though more energetic in their onset, would utterly fail.

The soothing effect of liquid medication will aid materially in producing a more lasting relief from those conditions which are the cause of the departure from the normal or healthy standard.

The liquid preparation—be it infusion, decoction, tincture or fluid extract—contains all of the plant constituents, and combines in Dame Nature's own way the various ingredients.

Plants yield their medicinal qualities to a varying proportion of water and alcohol. The practical pharmacist knows that the right proportions must be used in order to get a reliable and complete representation of the plant under treatment. Again, the plants must be used at different stages of their existence in order to obtain the most reliable results. Some must be used in the green state with all their juices; others should be partially dried and a part of their liquid substance allowed to evaporate, while still others must be in a completely dried condition.

Physicians understand very well that they get better results from the medicines of some manufacturers than they do from those of others. They do not always stop to consider why this is so. It lies all in the process of manufacture. The practitioner who uses tinctures made from fluid extracts will be very apt to lose faith in medication, because of the poor results which he, many times, obtains. He charges the fault to the medicinal agent, when, in reality, the fault lies in the method of preparation. The blame should be laid at the door of the pharmacist.

The rapidity of the absorption of fluids by the blood will prevent the cumulative action which sometimes results from the use of the alkaloids. This is a factor which should not be forgotten. Many deaths could be properly charged to this mode of action in the alkaloids.

Many times the alkaloidal principle must be placed in a fluid vehicle in order to get the best results, as, for instance, the whole method of hypodermic medication. There is no question but that the hypodermic syringe has been a blessing to mankind. But where is the practitioner who would like to treat his cases wholly with this instrument?

The alkaloids, when you have said the best you can in their favor, are, at best, only a part of the original plant. We are apt to term them the active principle of the plant. How are we to demonstrate this fact absolutely? Can it be demonstrated? I think not. Who would be rash enough to assert that all of the good of cinchona lies in the quinine, or that of nux vomica in the strychnine? And not only of these two, but also of the entire list of plants, which, by means of manipulation, can be caused to give up their alkaloidal principles.

Those who are at all familiar with the early history of the Eclectic School of Medicine know how nearly it came to ship-

wreck because of the wild enthusiasm over the idea of alkaloidal medication. Fortunately, the error was discovered early and the more rational and scientific method of using the entire plant was substituted.

Without doubt there are fewer therapeutic nihilists to-day among the eclectic practitioners than any other school of medicine. It is due to the fact that they use almost exclusively the liquid medicines.

I do not wish to be understood that there is no place for the alkaloids in the medical practice, for I am willing to admit that there is. I do contend, however, that that place is very much smaller than many of its champions would have us believe.

THE PHYSIOLOGIC ACTION OF DIONIN.

W. H. Snyder, of Toledo, Ohio, after explaining the pharmacology and the physiologic action of dionin at the recent meeting of the American Medical Association, described a number of experiments bearing upon its action on tissue and cells. The albino rabbit, medium size, was used; dionin in powder placed in each eye in larger quantities than would be necessary if the eye were abnormal; rabbits killed; globe and tissue enucleated, placed in formalin 4-per-cent. for forty-eight hours and later sections made from cornea. Control specimens were also made from normal rabbits' eyes. Pictures of the findings were projected upon the screen, showing the usual signs of general edema, vacuolation of the cells in the epithelial layer, the sections appearing water-logged and hazy. The lymph spaces were changed in shape and dilated. No absorption of cells as in edema of long standing. The surface uneven and the general picture that of edema of the cornea. He concludes that the action of the drug is purely local—greatest where the drug has actually rested; that its most marked action is in eyeballs where the tension is increased; that it has some disassociating action on the intracellular cement substance, allowing a transudation of serum from a globe under pressure; that its analgesic action is explained by its lessening of tension and the well-known action of the derivatives of opium. In iritis with adhesions, plus tension, the use of dionin lessened tension and permitted absorption of the mydriatic with prompt relief of pain and dilation of the pupil. In corneal ulcers the repair process begins as soon as the ulcer is cleared. The more recent the inflammation and higher the tension the better the results. In beginning pannus he had cleared up the cornea and resisted permanent opacity more satisfactorily than

with any previous treatment, the lid, of course, being treated for the cause. In glaucoma he preferred it to eserin, relief from pain being very marked, due, he thought, to relief from pressure. In old vitreous opacities he had had poor success.

E. V. L. Brown, of Chicago, called attention to the fact that a recent German investigator had found that dionin did not affect all animals. Experiments had been made with dogs, rabbits, and cats. The cats were not affected at all.

In closing, Dr. Snyder said that the effect was very slight in rabbits, requiring a great deal more of the drug than the human eye.—*Amer. Med.*, Aug. 5th, 1905.

TREATMENT OF ERYSIPELAS OF THE FACE.

Z. Edwards Lewis, of New Rochelle, N.Y., treats erysipelas of the face with ichthyol. It may be used in any strength, but a 40 to 50 per cent. solution is his standard. The solution is painted carefully over every bit of the inflamed surface and over at least half an inch of all adjacent sound skin. According to the virulence of the attack and to the time that has elapsed from the onset, he regulates the frequency of re-application—from six hours to three days. The face should not be washed for re-application unless there is a material decrease of tumefaction. The fresh solution, as it is applied, revivifies all that remains.

The effect of the application is immediate, and in a very short time the patient gives expression to the relief felt. Tumefaction subsides—sometimes with astonishing rapidity—and generally there is uninterrupted recovery. Applications are repeated at increasing intervals till a thorough washing, after a three days' interval, shows no disease. The applications are to be made without friction, with a soft brush or pledget of cotton, preferably the former.

The conditions of general health and bodily functions are to be inquired into, and any needed regulations secured. Loaded primæ viæ and imperfect depuration are a serious bar to remedial progress.

The sole objection to the treatment is cosmetic. It looks almost as bad as a silver nitrate stain, but is not so permanent, most of it being removed by one washing. The feelings of the patient and of onlookers may be conserved by covering the face with a mask of soft white muslin or linen, carefully adjusted. If this sticks, a little gentle dabbing with wet cotton will loosen it. Obviously, not the slightest force is to be used in the removal.

In cases where the elevation of temperature is too great to be

negligible, a good antipyretic of the coal-tar series is indicated; and the added effect of this in soothing irritability and pain is often a desideratum.—*N. Y. Med. Jour.*, July 22nd, 1905.

A Word in Favor of Proprietary Medicines.—A successful medical practitioner of many years' standing makes the following statement: "There are a large majority of combinations which extemporaneous pharmacy cannot prepare properly; and I know that through the dishonesty, ignorance, or indifference of many retail druggists, we are not able to get on prescriptions the very best drugs; hence it is to the manufacturing pharmacist, whose best interest lies in the purity and uniformity of his product, that we must look for our most reliable remedies. I endorse worthy proprietaries, but I most heartily condemn the great tendency of the 'half-baked,' so-called manufacturing 'chemist,' to foist upon the profession and public cheap imitations of standard preparations."

Malta Fever.—To the *Journal of the Royal Army Medical Corps* for September, Major Horrocks and Dr. Zammit contribute articles on Malta fever. Two of these papers, containing the important observations on the occurrence of the disease in goats, have already been noted in the *British Medical Journal* of August 26th, p. 447. In another communication, Major Horricks gives some interesting details of the experiments on the mode of conveyance of the micrococcus melitensis to healthy animals. He brings forward experimental evidence to show that the germ may be absorbed in dry dust or in food by monkeys. When transmitted through an unbroken mucous membrane the process of absorption is comparatively slow, and under these conditions the wave of fever appears to be prolonged. On the other hand, when absorbed through a crack in the mucous membrane or in the skin, the absorption is rapid, the fever curve usually rising rapidly and falling rapidly. He also finds that healthy monkeys may become infected by urine secreted by diseased ones, the probable route of infection being by the paws, which have become soiled with the secretions. His experiments on mosquitoes as carriers were uniformly negative. This latter point is important, as it would indicate that infection in man is probably by food or dust, the former channel being the more likely in view of the recent researches on the organism in goat's milk.—*B. M. J.*, September 23rd, 1905.

ABSTRACTS.

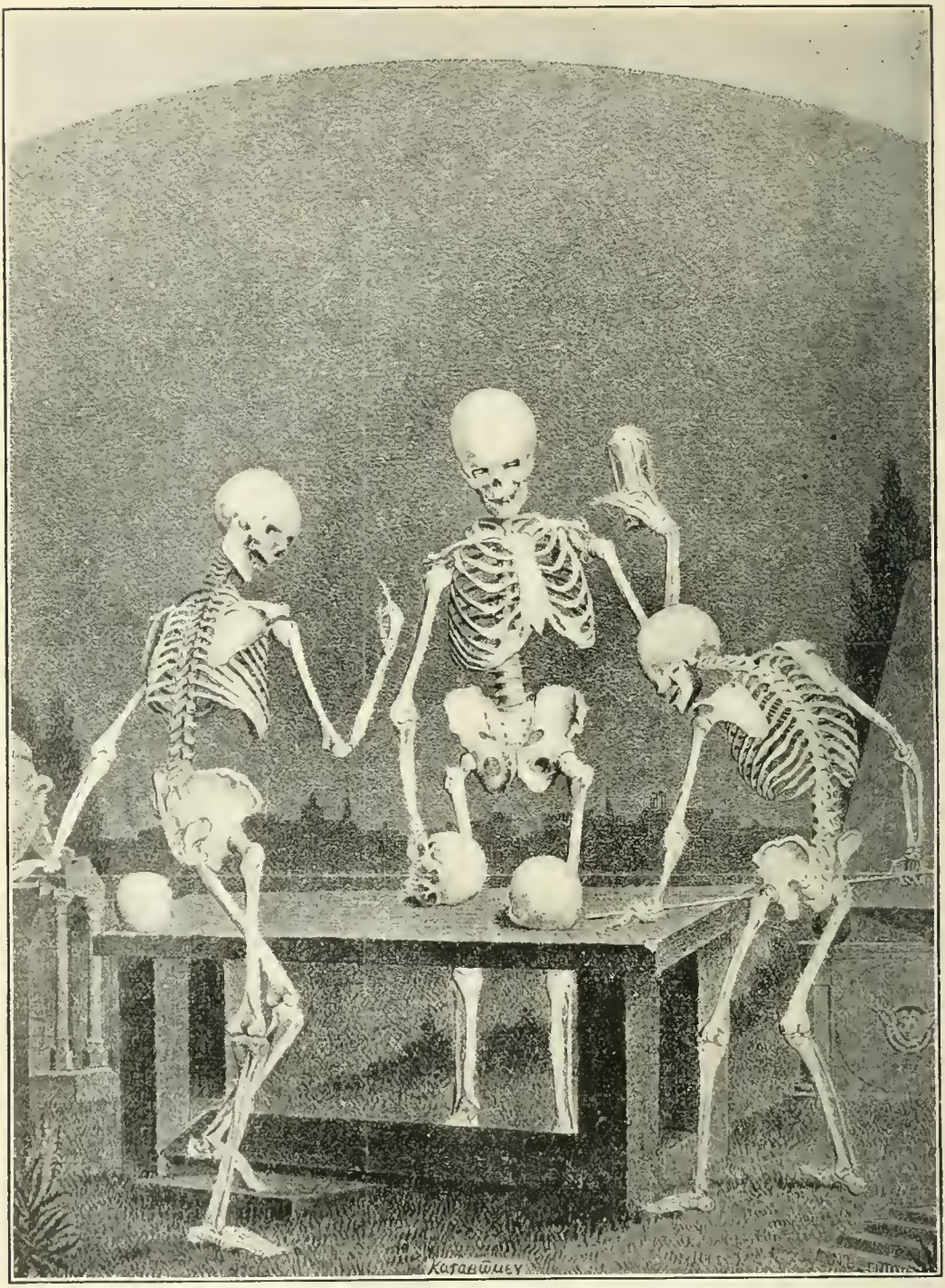
Congenital Dilatation of the Colon.—J. Ibrahim (*Deutsche medicinische Wochenschrift*, Berlin and Leipsic) gives illustrations of an infant with an abnormally long and flexible sigmoid flexure, inducing tympany and stagnation of feces. He regards the case as the initial stage of idiopathic dilatation of the colon.

Puerperal Infection.—v. Rosthorn (*Deutsche medicinische Wochenschrift*, Berlin and Leipsic) passes in review the various methods of treating puerperal infection, remarking in regard to intravenous infusion of a solution of formol that this method of treatment has been discarded on account of its dangers, demonstrated by experiments on animals. He is convinced that intravenous injection of the silver salts is perfectly harmless, with good technic, but that their action is unreliable. They probably act by their chemotactic inhibiting influence on the bacteria, but enormous quantities of leucocytes are sacrificed in the struggle. If the blood-forming organs are unequal to the task, then the drug fails to cure. There is also a possibility of some electrocatalytic action. On account of its harmlessness and our helplessness generally, the method should be given a trial and not be dropped too quickly. He gives, in a table for comparison, the details of the six antistreptococcus sera on the market, Marmorek's, Aronson's, Tavel's, Moser's, Meyer's and Paltauf's. The reason why serum treatment fails so completely in one case and succeeds so brilliantly in an apparently entirely similar case is a matter for further research. Tavel suggests that there may be a lack of cytases or leucocytes in the negative cases, and that it may be possible to supply the missing elements when we learn which they are.

Ocular Symptoms in Epidemic Cerebrospinal Meningitis.—Heine, Breslau (*Berliner klinische Wochenschrift*) writes from the eye clinic at Breslau in regard to the ocular disturbances noted in an experience of 100 cases of epidemic cerebrospinal meningitis. The pseudo-glioma characteristic of this disease leads to atrophy of the eyeball, but, although the eye is blind, it is not disfigured and never requires operative interference. This form of severe metastatic ophthalmia never entails sympathetic ophthalmia. This finding is so characteristic of epidemic cerebrospinal meningitis that we may almost conclude from it in regard to the pronounced or abortive occurrence of the disease at some past time. In his experience, with a single exception, it has been unilateral, but the milder affections, which do not reach this

severe stage, frequently appear in both eyes. The one exception was a child, blind and deaf as the result of the disease, with bilateral pseudo-glioma. He reviews the experiences at other hospitals throughout Silesia. In every 100 patients, 20 presented ocular symptoms, the total list including 15 involving the motor apparatus, 10 the optic nerve tract, and 5 the interior of the eye. In his own 100 patients, optic neuritis and disturbances in the retina were observed in 9 patients and were probable in 5 more. In 13 there were nystagmus, strabismus or paralysis, etc., probable in 2 more, and unilateral ophthalmia in 3, bilateral in 2, the total being 21 patients, with 27 positive and 7 probable ocular disturbances. In conclusion he reviews what has been written lately on the subject. He has never had occasion to see some of the symptoms described by other authors, such as edema of the conjunctiva and subepithelial infiltration of the cornea. He calls attention to the rarity of winking, especially at the onset of the disease. It may aid in differentiation.

Death from Drowning.—E. Margulies (*Berliner klinische Wochenschrift*) shows that the first phase of drowning—that of arrested respiration—lasts from 31 to 76 seconds, according to different authors. The second stage, that of dyspnea, lasts from 60 to 150 seconds, Brouardel favoring the shorter time. The drowning man breathes deep, with open eyes, and swallows water. The third stage—that of asphyxia—lasts for one minute, according to Brouardel, and the terminal respiratory movements for about 30 seconds longer. Rescue during the first minute of drowning has every chance of success; the chances during the second minute are less favorable, and after the beginning of the third minute they grow more and more dubious. Brouardel has further established the fact that when an animal is drowned after excessive muscular fatigue these various stages of the drowning succeed each other in less than half the time required in normal conditions. One factor that prolongs the act of drowning is that the drowning person is liable to come to the surface and get a breath of air, thus postponing the terminal stage. In sea bathing, to prevent accidents from drowning, Margulies advises that attendants be stationed where they can reach a drowning person in less than one minute. No time should be wasted in throwing life preservers, but the attendant must be ready with a boat. As the interval is so much shortened in case of fatigued muscles, a narrow limit should be set for the swimmers, any one passing beyond that limit doing so at his own risk, on account of the inability to reach him in the half of the brief interval on which one can count in the case of other drowning persons.



DR. NORMAN BETHUNE'S CLEVER CARTOON OF THE FATHERS OF SURGERY IN UPPER CANADA.

This picture is reproduced from a lithograph printed in 1884, now in possession of Dr. Charles O'Reilly, late of the Toronto General Hospital. An inscription beneath the original reads as follows: "Did these bones cost no more the breeding than to play at loggats with them? Mine ache to think on't!"—*Hamlet*. The central figure represents Dr. Widmer, that on his left in the act of playing is Dr. John King, and the other shade represents Dr. George Herrick, most eccentric of the trio.

The Canadian Journal of Medicine and Surgery

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Advertisements, to insure insertion in the issue of any month, should be sent not later than the tenth of the preceding month. London, Eng. Representative, W. Hamilton Miln, 8 Bouverie Street, E. C. Agents for Germany Saarbach's News Exchange, Mainz, Germany.

VOL. XVIII. TORONTO, DECEMBER, 1905. NO. 6.

Editorials.

THE CLINICAL FORMS OF CHRONIC RHEUMATISM.

CHRONIC articular rheumatism, following an acute attack of rheumatic fever, at a longer or shorter period, is the outcome of a microbic infection. Between this form and the primitive form of chronic rheumatism proper, no clinical or pathological differentiation can be made. They should, therefore, be considered as one and the same form of rheumatic infection, preceded by an

acute stage in the first case, chronic from the beginning in the other.

Dr. René Veerhogen, of Brussels, who presented the second report on clinical forms of chronic rheumatism at the French Congress of Medicine, held at Liege, last September, expressed the opinion that pseudo-rheumatisms, acute or chronic, are not distinguished from pure rheumatism, by clinical particulars, sufficient to place them in a category by themselves. The sole really admissible difference between them is found in the nature of the infecting agent, which in true rheumatism is variable and vague, while in any one of the pseudo-rheumatic class it is constant and definite. According to this view, the two groups should be merged into one. Dr. Veerhogen thinks that arthritis deformans has nothing in common with rheumatism, properly so-called. There are also partial forms, three of which deserve mention: Retraction of the plantar or palmar aponeurosis (Dupuytren's disease), rhizomelic spondylosis, and Heberden's nodes. These different syndromes are often traceable to rheumatism, but may also be caused by gout or by diabetes. The same may be said of rheumatic spondylosis, described by Forestier, which is not of a specific character.

Rheumatic purpura, erythema nodosum, and myositis are also classed among the chronic manifestations of a rheumatic infection. Dr. Veerhogen combats, at considerable length, the view held by Dr. Poncet, of the Lyons Medical School, who holds that in a tubercular patient acute or chronic disease may exist, exhibiting all the ordinary appearances of true rheumatism, for instance, acute articular rheumatism, and ankylosing plastic arthritis, the aponeurotic retractions, rhizomelic spondylosis, arthritis deformans, and rheumatic flat-foot.

According to Poncet's view, the above-named diseases are derived etiologically from tubercular infection, which, he says, may also produce pseudo-rheumatism, either by localization of the bacilli or by virtue of an action which tubercular toxins placed at liberty in a visceral centre might exercise from a distance, or even in the latent condition.

Dr. Veerhogen thinks that, from a clinical standpoint, Poncet's hypothesis cannot be accepted.

According to his own opinion, the co-existence of tuberculosis

and rheumatic disorders does not possess any demonstrative value, and for the following reasons:

1. The frequency of mixed infections, the exaltation which the presence of tubercular toxins causes in the virulence of pathogenic agents, such as the bacillus coli, the streptococcus and the staphylococcus, explain the appearance of acute or chronic articular rheumatism in phthisical patients.

2. Observations relative to pretended tubercular rheumatisms bring no proof to show that the bacillus of Koch has been the only causative factor in the many cases described.

3. The influence of salicylic acid medication is not more decisive, since that form of treatment has proved its efficacy in several cases credited by authors to bacillary rheumatism, while it often proves inefficacious in true rheumatism.

4. The apparent transformation of some local rheumatic affections into typical articular tuberculosis is not conclusive, for identical facts are observed after gonorrheal rheumatism and the other infectious pseudo-rheumatisms, as well as after true rheumatism.

5. The pathological anatomy of bacillary rheumatism does not exist in the tubercular cases; all that is found in them are the characteristic lesions of tuberculosis properly so-called (tubercular synovitis, first stages of white swelling), or else commonplace lesions.

To explain a class of cases like these latter Poncet has imagined the hypothetical action from a distance of toxins secreted in a visceral lesion. Dr. Veerhogen affirms that no experimental fact confirms this supposition. For tubercular virus, on the contrary, appears to act only where the Koch bacillus is present, the soluble toxins of this bacillus not having, up to the present time, caused any experimental articular lesion. His conclusions are as follows:

1. Rheumatism is an infectious disease, the pathogenic agents of which are multiple and variable in different cases.

2. Chronic rheumatism assumes different forms, grouped in four principal types, all of which are often co-existent in the same individual.

(*a*) The osteo-articular type comprises primitive and secondary rheumatisms, some rare forms of spondylosis, in which

deforming articular lesions exist, and certain cases of Heberden's nodes.

(*b*) The serous type includes manifestations in the serous and synovial membranes (chronic synovitis and vagino-tendonitis), some forms of chronic pleurisy, and generally, also, dermic and sub-dermic disorders (purpura, erythema, nodosum, etc.).

(*c*) The fibrous type: hypertrophy of the peri-articular organs; some cases of Dupuytren's disease; some cases of spondylosis with change in the vertebral ligamentous apparatus; some cases of scleroderma.

(*d*) The muscular type: chronic rheumatic myositis; some cases of spondylosis of muscular origin.

3. The existence of tubercular rheumatism is, up to the present time, simply an hypothesis. Tuberculosis appears, however, to determine, in an exceptional manner, diseases of the joints, which have nothing in common with rheumatism, and which may be derived, perchance, in a secondary manner, from a lesion of the neuro-muscular organs. J. J. C.

THE TORONTO HOSPITALS AND PRIVATE SURGEONS.

The question is sometimes asked—Can people who use dispensaries afford to pay a doctor? Just now, when some rich men have given considerable sums to the building fund of Toronto General Hospital, the question is quite proper. The motives of the charitable donors are of the best; but, because money is given to build a hospital here, it would not be correct to infer that Toronto really wants one. To want a hospital is one thing; to shift the burden of the sick to the shoulders of your neighbor is another thing. One reason why people send the sick to a hospital is that they do not want to be troubled with attendance on sick persons. Besides, the nursing and doctoring of a patient in a private house are very expensive. Another reason is that a good many people, by some hazy process of reasoning, regard free medical service at hospitals just as most city people regard police protection, fire protection, and free libraries.

In an article entitled "Need any man lack a job?" which appears in the September number of *The World's Work*, page 6663, instances are given which show that people who are not poor will impose on the hospitals if allowed to do so:

"At Johns Hopkins Hospital a story is told of a woman, who, after being treated, lingered in the dispensary. 'Is there anything further, madam?' a young doctor asked. 'Oh, no, I'm just waiting till they've treated my maid.' A Boston woman, who weekly visits fifty families of wage-earners to collect their deposits for a savings institution, recently questioned the families about their use of dispensaries. All of them went to the dispensaries to be treated; only in exceptional cases, child-birth, for example, was a private physician called in. The Chicago Board of Health gives free antitoxin in diphtheria cases, when the request is accompanied by a physician's statement that the family is unable to pay. Two years ago, the Bureau of Associated Charities became convinced that free antitoxin was going to many families who could afford to pay for it, and arranged with the Board of Health that the applications, though promptly granted, should be investigated. Since then the Bureau has investigated every case, and its records show that in two-thirds of the cases the families were able to pay."

This statement reflects on the veracity of the physicians of Chicago, as well as on that of some of its people. But let that pass. A physician, trying to do his best for the child of a penurious person, might have to choose between a falsehood and payment for antitoxin out of his own pocket. Indiscriminate free antitoxin, it is to be hoped, will not be introduced into Toronto. It would seem, also, that there is room for a Bureau of Associated Charities here, which, by co-operating with the municipal Health Board and the M. H. O., would assist in heading off the attacks of persons who receive at hospitals, and for nothing, medical assistance for which they ought to pay. It seems, however, that with the advent of millionaires and the striving of lesser fry to outdo each other in munificence, modern hospitalism has secured a firm hold on Toronto, so firm, indeed, that in future years it will be but a poor place for all but the chiefs of the medical profession.

Another abuse is cropping up, by which Toronto hospitals, built out of charitable bequests and public funds, are placed in a position inimical to the private surgeon, and the chief sinners in this respect are the hospital surgeons. A private surgeon wishing to operate on a private or semi-private patient at Toronto General

Hospital, or St. Michael's Hospital, must first consult with one of the hospital staff of surgeons, and operate with his assistance. The surgical staff of either of these hospitals are allowed to levy on private and semi-private cases tolls, which in no way belong to them. If a surgeon of Toronto General Hospital is entitled by right to a consultation with an outside surgeon who sends a patient to that institution, and if he is also entitled to be present during the operation, he is also in a position to demand fees for his professional services to another man's private patient.

The effects following the exercise of this rule are not quite evident; but some such as these may be foreseen: The creation in Toronto of a surgical caste, which, by receiving the cream of the surgical work, will be made into a sort of surgical aristocracy. It is true that private hospitals, where private surgeons could do operations, without having to pay tolls to the aristocracy, would appear to overcome this difficulty. A ready answer to this solution is found in the fact, that a private hospital cannot compete in cheapness with a public one, and the patient, who pays both hospital and surgeon, naturally prefers to patronize an institution in which cheapness is combined with efficiency.

Recognizing, as one must, the advantage of having surgeons skilled in diagnosis and operative work attached to the medical faculty of the University of Toronto, the private surgeons of Toronto should yield to the teaching surgeons all the free patients of the hospitals. A surgeon who practises for a living must hold his own cases; to do otherwise would be to commit professional suicide. As the hospitals of this city, owing to the advantages they possess in endowments, together with provincial and municipal grants, can cut under the prices of the private hospitals, they should not admit private patients to their wards. Their financial resources, their right of appeal to a sympathizing public, the skill of their surgeons, the business acumen of their trustees and managers should be consistently devoted to the service of the impecunious sick. More than an even chance is not fair in commercial competition. Neither should hospitals, the outcome of Christian charity, place professional men in a position to compete unfairly with their brethren. But, at all events, whatever hospitals may do, "Live and let live" is a motto which should pass currently among brethren of the scalpel. J. J. C.

EDITORIAL NOTES.

Returns of the Inland Revenue Department for the Past Year.—The returns of the Inland Revenue Department show the consumption of spirits, last year, to have been 1.031 gallons per head of population. This is an increase over the year before, when the consumption was .852 per capita. However, the consumption of spirits is on the decrease, as in the seventies it was frequently above a gallon and a half per capita, and in later years it has generally been below a gallon per capita. The consumption of beer is increasing. Last year it was 4.822 gallons per capita, about the same as the year before. The average since 1869 has been 3.231 gallons. In the seventies the consumption averaged about two gallons per capita. The wine consumed last year was .09 gallon per capita; the average since 1869 is .122 gallon. Tobacco was last year consumed to the extent of 2.686 pounds per capita. The year before it was 2.765, and the average since 1869 was 2.184 pounds. The statement of quantity for every man, woman and child in the Dominion is as follows:

	Amount.
Spirits	1.031 gals.
Beer	4.982 gals.
Wine	.090 gals.
Tobacco	2.686 lbs.

The Faradic Current as a Means of inducing Artificial Respiration.—To overcome syncope, occurring during the administration of chloroform, Dr. Villette (*Presse Médicale*, September 13th, 1905) employs the Faradic current, applying it to the pectoral regions on both sides. This produces a lively excitation of the sensory nerves of the parts, and yields all the benefits of artificial respiration. He says: "In lifting the arms of a person who is in a state of syncope, the ribs are slightly elevated. If you then excite the pectoral muscles, which are in a state of relaxation, the contraction of these muscles will cause a full respiration. This last remark will not appear exaggerated if you observe that the superficial reaction of the muscles of the thorax is accompanied by a reflex contraction of the diaphragm; it is very curious to notice at this moment the close solidarity which unites the organs collaborating in the

production of the same function." Should a respiratory syncope occur to an anesthetized patient the anesthetist places the patient's arms behind his head, and, after dipping the electrodes into a solution of bichloride, applies them to the pectoral muscles, each electrode over the external third of the corresponding muscle. A strong respiratory effort is immediately produced. When this is finished, the anesthetist removes one of the electrodes, and a mechanical expiration follows, which may be reinforced by pressure over the patient's ribs. At first, the anesthetist should evoke from fifteen to twenty respirations in half a minute; later on he should take advantage of a spontaneous respiratory effort, and he should endeavor to amplify it. Dr. Villette also employs the Faradic current during anesthesia as a preventive of syncope. Thus an anesthetized patient may have either a too agitated or a too slow respiration. By applying the Faradic current and exciting the pectoral muscles, or any other region of the body, especially the internal surface of the thighs, the patient is partially awakened, and the breathing becomes more tranquil and more rhythmic. He mentions the following experiment to show the utility of such a procedure: "When I have normally anesthetized dogs, I can produce two or three successive attacks of syncope in them, and I can relieve them by faradization. Should they exhibit, on the contrary, a violent and arrhythmic respiration, and should I not endeavor to modify it by the Faradic current, the first attack of syncope which supervenes often proves fatal." The conclusion to be drawn from Dr. Villette's experiments and clinical observations is, that during the administration of chloroform a properly equipped Faradic battery should be placed on a stand beside the anesthetist, who will thus be in a position to use it as a preventive of respiratory syncope, rather than as a treatment for that condition.

Analyses of Jams, Jellies and Marmalades.—Bulletin No. 104, issued June 15th, 1905, from the laboratory of the Inland Revenue Department, Ottawa, gives the analyses of jams, marmalades and jellies. Of the total number of samples examined, 66 per cent. contained glucose, 15 per cent. contained preservatives, 30 per cent. contained dyes. Glucose, compared with cane sugar, is less sweet, much less soluble in water, and less disposed to crystallize and, when injected into the blood vessels, it does not

pass off to the like extent by the kidneys. Diabetic, urinary, and hepatic sugar have the like chemical composition as glucose. Looked at, therefore, from the standpoint of chemistry or physiology, there can be no objection to the substitution of glucose for cane sugar. If it is cheaper than cane sugar, then jams, marmalades and jellies in which a percentage of glucose is used ought to be sold more cheaply than if cane sugar were the only sweetener used in their manufacture. No dyes were found in any samples of peach jam, gooseberry jam, or plum jam; in some samples of black currant jam, raspberry jam and strawberry jam dyes were found. Of the 29 marmalades analysed, 3 samples (manufactured by a Toronto house) contained a dye. Of the 14 jellies analysed, 4 contained a dye. In the opinion of some manufacturers a dye is necessary to give an air of vraisemblance to the finished article, as, for instance, to red raspberry jelly, strawberry jelly, red currant jelly. The analyst does not mention the name of the dye used in these cases, so we are free to suppose that it is not a poison; probably cochineal or some other innocent substance capable of giving a reddish shade to jelly or jam, is used. The useful point to remember is that in eating a jam or jelly, the natural color of which is red or black, you are likely to get a dyed article; neutral-tinted fruits, such as peaches, plums and gooseberries, do not call for dyes, and when converted into jam or jelly are not dyed. As the quantities of preservatives found are not mentioned, we are at liberty to infer that benzoic acid and salicylic acid are not used in poisonous quantities. The use of these acids raises a therapeutic question. However, we do not suppose that the manufacturers of jams and jellies have any notion of the therapeutic uses of these acids, and are only interested in their use as food preservatives.

Bulletin No. 103: Peppers.—Bulletin No. 103 reveals a curious condition of affairs in respect to the public taste anent pepper. Of the black and white peppers collected and analysed, 47.7 per cent. were found to be adulterated, and only 40.7 per cent. undoubtedly genuine. Many of the adulterated samples contained wheat flour and foreign tissues; some contained foreign tissues and dirt. Of the six samples purchased in Toronto only one was found genuine. One contained wheat flour and foreign tissue; one contained pepper tissue with some foreign tissues; one con-

tained a little foreign tissue; one contained wheat starch and foreign tissue, and one contained pepper tissue and some foreign tissue. Evidently some of the Torontonians are not anxious to use the carminative stimulant in a pure form; but that is not a reason why grocers should be allowed to sell a cheap, adulterated pepper at the price of the real article. The Inland Revenue Department should institute trials and have the sellers of adulterated foods fined for foisting them on the public. If the adulterant used is noxious, let the public and the manufacturer know it. If it is dirt, be equally explicit. Twenty-three years ago the writer of this note listened to the reading of a paper on food adulterants by the late Professor Prescott, of Ann Arbor, Michigan, in which were given, *inter alia*, details of the adulterants used in pepper. The adulterants mentioned were similar to those given in Bulletin No. 103. From the standpoint of chemistry, the analysis is interesting; but why not test the question in the courts? If the public are satisfied to use pepper dust, wheat starch, etc., on their food, they are certainly entitled to the reduced price of the article they buy as well as the retail grocer. Of the six samples of black pepper taken from Toronto grocers, only one was genuine, and it was sold at twenty-five cents per pound. Of the five other adulterated samples, one sold at twenty-five cents, three at thirty cents, and one at thirty-five cents per pound. If one grocer could afford to sell pure pepper at 25 cents per pound, why could not the other five do the same?

Toronto as a Summer Resort.—The love of change is the real motive which induces people to go away from home in summer, the heat of the weather is often a pretext. It is sometimes as hot at the place we go to as it was at the spot we left behind. People want a change of some sort; want to get away from the observation and criticism of their neighbors; want to see new faces, hear new stories, eat new dinners, drink new fluids, in fact, want change. The brain cells are wearied by repeatedly viewing the same scenes, hearing the same sounds, inhaling the same odors, and we long for something new. Perhaps of more importance than conveniently situated summer hotels in Toronto are the behavior and manners of the inhabitants, as well as the traveller's opportunities of meeting the best of them. Of what use is it to a traveller of acute observation, refined manners and cultivated

tastes, if he passes some days in a city, unknown, unsought, unappreciated? Sunsets, sunrises, hills, plains, lakes, forests are well enough; they were here centuries ago, they will be here when we are ashes. The men and women who live in a city interest us more than the scenes in which they live. Man is the picture; scenery is but the framing of the picture. Travellers, often of an inferior grade, who have been clever enough to obtain introductions, or who are accredited to clubs, can come from Jamaica, Louisiana, Texas, to Toronto, and find cultivated men and women living here in a pleasing environment. Without the magic introduction to the people the environment soon palls. It then becomes a question of ice-water and the thermometer. "Yes, the weather was delightful, and we had some charming sails on Lake Ontario; but we did not know a soul, and we were glad to get back to the old place."

Eternal Vigilance vs. Emergency Spurts.—Reports presented at the fourth quarterly meeting of the Ontario Health Board by Medical Inspector Dr. Bell show that smallpox is prevalent in Ontario. The disease is generally mild and the mortality from it small; but it is smallpox, and not chicken-pox, or a rash caused by poison ivy. The practice of other countries in the matter of vaccination deserves our approval and imitation. Smallpox has been practically stamped out in Germany and France, owing to a strict enforcement of vaccination laws. In England vaccination is obligatory every seven years. In these countries quarantine during the prevalence of foreign epidemics of smallpox has been superseded by a system of examination and inspection, which is operative all the time. If smallpox is to be stamped out in Ontario indifference to the benefits of vaccination should be succeeded by a demand for vaccination and re-vaccination. But experience shows that in too many cases people who should know better, instead of submitting to vaccination, or even asking for it, try to escape from the operation. The prevention of smallpox, therefore, should be placed in the hands of the Ontario Health Board and the vaccination laws of this Province should be made to imitate those of France, England and Germany. A law should be passed making vaccination or re-vaccination compulsory on every individual, before he or she reaches adult age.

J. J. C.

News of the Month.

THE BRITISH MEDICAL ASSOCIATION.

Patron: His Majesty King Edward VII, K.G., F.R.C.P., F.R.C.S.

The seventy-fourth annual meeting of the British Medical Association will be held at Toronto, Canada, on Tuesday, Wednesday, Thursday, Friday and Saturday, August 21st, 22nd, 23rd, 24th and 25th, 1906.

Programme.

President.—George Cooper Franklin, F.R.C.S. (Eng.), L.R.C.P. (Lond.), Surgeon, Leicester Infirmary, Leicester.

President-elect.—Richard Andrews Reeve, B.A., M.D., LL.D., Dean of University of Toronto Faculty of Medicine.

Chairman of Council.—Henry Wm. Langley Browne, M.D., Ch.B., F.R.C.S.E., Consulting Surgeon, West Bromwich District Hospital.

Treasurer.—Hy. Radcliffe Crocker, M.D., F.R.C.P., Physician Skin Department, University College Hospital, London.

An address in Medicine will be delivered by James Barr, M.D., F.R.C.P., F.R.S.E.

An address in Surgery will be delivered by Sir Victor Horsley, F.R.C.S., F.R.S.

An address in Obstetrics will be delivered.

The scientific business of the meeting will be conducted in twelve sections, as follows:

Medicine.—President: Sir Thomas Barlow, Bart., K.C.V.O., London. Vice-Presidents: Dr. Alex. McPhedran, Toronto; Dr. James Stewart, Montreal. Hon. Secretaries: Dr. R. D. Rudolf, Toronto; Dr. J. T. Fotheringham, Toronto.

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Obstetrics and Gynecology.—President: Dr. Freeland Barbour, Edinburgh. Vice-Presidents: Dr. J. A. Temple, Toronto; Dr. A. H. Wright, Toronto; Dr. Wm. Gardner, Montreal. Hon. Secretaries: Dr. Frederick Fenton, Toronto; Dr. K. C. McIlwraith, Toronto.

Therapeutics.—President: Professor D. W. Finlay, M.D., Aberdeen. Vice-Presidents: Dr. J. L. Davison, Toronto; Dr. A. D. Blackader, Montreal. Hon. Secretaries: Dr. V. E. Henderson, Toronto; Dr. C. P. Lusk, Toronto.

Pathology and Bacteriology.—President: Professor J. G. Adami, M.D., F.R.S., Montreal. Vice-Presidents: Dr. J. J. Mackenzie, Toronto; Dr. W. T. Connell, Kingston; Dr. Ingersoll Olmsted, Hamilton. Hon. Secretaries: Dr. G. Silverthorn, Toronto; Dr. Harold C. Parsons, Toronto.

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Laryngology and Otology.—President: Dr. Dundas Grant, London. Vice-Presidents: Dr. G. R. McDonagh, Toronto; Dr. H. S. Birkett, Montreal. Hon. Secretaries: Dr. D. J. Gibb Wishart, Toronto; Dr. Geoffrey Boyd, Toronto.

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Dermatology.—President: Dr. Norman Walker, Edinburgh. Vice-Presidents: Dr. Graham Chambers, Toronto; Dr. H. B. Anderson, Toronto; Dr. James Galloway, London. Hon. Secretaries: Dr. D. King Smith, Toronto; Dr. D. McGillivray, Toronto. Hon. Local Secretaries: Dr. F. N. G. Starr, Toronto; Professor J. J. Mackenzie, Toronto; Dr. D. J. G. Wishart, Toronto. Hon. Local Treasurer: Dr. J. F. W. Ross, Toronto. Secretary to Exhibition: Dr. Arthur Jukes Johnson, Toronto.

Pediatrics.—President: Dr. G. A. Sutherland, London. Vice-Presidents: Dr. H. T. Machell, Toronto; Dr. A. M. Baines, Toronto. Hon. Secretaries: Dr. Arthur Wright, Toronto; Dr. J. S. A. Graham, Toronto; Dr. E. Stanley Ryerson, Toronto.

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Honorary Local Secretaries.—Drs. F. N. G. Starr, Prof. J. J. Mackenzie, Dr. D. J. Gibb Wishart, of the Medical Laboratories, University of Toronto.

THREE "ECCENTRIC PIONEER SURGEONS" OF TORONTO.

THROUGH the kindness of *The Sunday World* we are enabled to reproduce a clever artistic production by the late Dr. Norman Bethune, of the three "eccentric pioneer surgeons" of Toronto, Dr. John King, Dr. Christopher Widmer and Dr. George Herriek. Dr. King was born in Ireland in 1806 and came to Toronto when he was 24 years old. He was a member of the first General Hospital staff when that institution was on the corner of King and John Streets. Dr. King died in 1859. Dr. Widmer was the father of surgery in Upper Canada, and the very life and soul of the General Hospital. He came to Canada in 1812, and died in 1858 at the age of 78. Dr. Herrick, the third member of this illustrious group, was a native of Cork, Ireland, and first saw

the light of day in 1789. He was the most eccentric of the trio. He came to Toronto in 1838, and lived and died a bachelor. He had neither gas nor carpets in his house, and was in other ways conspicuous for his eccentricities. Dr. Herrick gave two dinners a year—one at Christmas and the other on his father's birthday. His guests were always the younger men of his acquaintance. He regularly retired at 9 p.m., and had no hesitancy in asking his guests to move off when his bedtime approached. Dr. Herrick, also, was a valuable member of the General Hospital staff for many years. One of his individual peculiarities was a nervous habit of putting out his own tongue at his patients whenever he desired to examine their tongues. The doctor was an ardent admirer of Dr. John King, whom he affectionately called "Rex, my boy." As will be observed by reference to the engraving Dr. Herrick almost invariably carried his arm behind his back, and his right arm swinging as he walked along the street. The lithograph from which the engraving is made was presented to Dr. Chas. O'Reilly by the late George Lewis, whose signature it bears, and who bequeathed $10,000 to the General Hospital. During the recent visit of His Excellency to the General Hospital, Earl Grey was much interested in this weird yet wonderfully correct cartoon of the fathers of medical surgery in Upper Canada, which had hung in Dr. O'Reilly's office for many years, and expressed a desire for a copy. Not only His Excellency, but many Canadian medical men, will be pleased to secure a souvenir of such genuine historical interest and value. Truly these are shades of men who set a high standard for those who came after them and for the science of surgery in Canada. If they were eccentric it was the pardonable eccentricity of genius.

ITEMS OF INTEREST.

Canadian Medical Association.—The Canadian Medical Association convenes in Toronto on the Monday and Tuesday immediately preceding The British Medical Association, which opens in August next, about one week prior to the opening of The Canadian National Exposition. Professor A. McPhedran is president, and Dr. Geo. Elliott, 203 Beverley Street, Toronto, general secretary.

Dr. Ross' Appointment.—George W. Ross, M.A., B.A. (Toronto), M.R.C.S. (England), L.R.C.P. (London), son of the Hon. G. W. Ross, has been elected to the position of Pathologist and Registrar to the Victoria Park Hospital, London, England. Dr.

Ross, who has for some time been "walking the hospitals" in London, has been unusually successful in his profession. Last month's number of *The Lancet* contains an able article from his pen, prepared in conjunction with Professor A. E. Wright, who is quite an authority on therapeutics and bacteriology.

New Provisions at Toronto General Hospital.—Dr. J. N. E. Brown, the new Medical Superintendent of Toronto General Hospital, sent out recently the following announcement, which we consider a step in advance of the old regime: "*Dear Doctor,*—I have the honor to inform you that provision has been made in the Pavilion for private and semi-private ward gynecological cases, which may be treated by any member of the profession. For semi-private wards a charge of $6.00 and $8.00 a week is made, and for the private wards $12.00 to $17.50 a week. Provision has also been made for the admission to the Emergency Hospital of a limited number of semi-private and private cases (medical and surgical) at $6.00 a week and $12.00 a week, respectively. Any physician may have charge of private or semi-private ward cases in the main building of the General Hospital. We also have accommodation in the Burnside Lying-in Hospital for private ward as well as public ward cases."

Hemolysis in Relation to Practical Medicine.—Hahn, Nauheim (*Berliner klinische Wochenschrift*), in his numerous experiments and experiences with human volunteers, confirms Koeppe's assertions in regard to hemolysis from acids and heat. He further concludes that alcohol is a decided poison for the blood corpuscles, inducing hemolysis proportionately to the concentration and, with a given concentration, proportionately to the temperature. The intensity of the hemolytic action is further dependent on its duration. When supplemented by the action of chloral, the alcohol hemolysis is reinforced. The superposed action of alcohol and chloral—even at normal temperatures—suggests the advisability of caution in administering chloral to alcoholics, and also in case of fever. The alcohol further diminished the resisting power of the red corpuscles and rendered them more susceptible to other injurious influences. The melting point of the blood corpuscles was lowered in proportion to the concentration. He believes that the alcohol, plus chloral, dissolves out the fatty elements in the wall of the blood corpuscles, thus inducing hemolysis by another mechanism from that of the osmosis of water hemolysis.

The Physician's Library.

BOOK REVIEWS.

A Practical Treatise on Sexual Disorders of the Male and Female. By Robert W. Taylor, A.M., M.D., Consulting Genito-urinary Surgeon to Bellevue and to the City Hospitals, New York. Third edition, thoroughly revised, with 130 illustrations and 16 plates in colors and monochrome. New York and Philadelphia: Lea Brothers & Co. 1905.

Dr. Taylor's experience in the treatment of sexual diseases has been very extensive, enabling him to record and describe much that he has seen himself. In this edition the whole text has been gone over and revised, many new chapters and sections have been added, and the work has been made more attractive and useful by the introduction of several colored illustrations. Special attention is given to the matter of therapeutics, both medical and surgical, in order to make the author's intentions regarding treatment plain and easily understood.

We are quite sure that this edition will be even more popular than the former ones. A. E.

The Treatment of Fractures. With Notes Upon a Few Common Dislocations. By Charles Locke Scudder, M.D., Surgeon to the Massachusetts General Hospital. Fifth edition, thoroughly revised. With 739 illustrations. Philadelphia and London: W. B. Saunders & Company. 1905. Canadian agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

It was a service of real value when Dr. Scudder published his work on "The Treatment of Fractures" only five years ago. Already a fifth edition is before the public—a new edition every year. This is a remarkable record, and is explicable only when the merits of the book are considered.

The use of anesthesia in the examination and dressing of fractures, of the Rontgen rays in diagnosis, and of asepsis and the open method in their treatment, has relegated the older surgical monographs on this subject to a place on the shelves of the reference library. The use of the terms "open" and "closed"

fracture, instead of "simple" and "compound," illustrates well the general trend. In this edition important changes have been made in the discussion of the treatment of fractures of the neck of the femur. Important changes are advocated, based upon recent clinical advances, which promise something approaching a revolution in the surgical treatment of this distressing class of fractures.

The publisher's share of the work, done in illustration and otherwise, is in the highest style of the printer's art.

B. E. M.

The Journal of Advanced Therapeutics. Official organ of the American Electro-Therapeutic Association; Official organ of the International Association of Climatologists. Rahway, N.J., and New York: A. L. Chatterton & Co. Published monthly. Terms, $3.00 per year.

This, the pioneer journal of physical therapeutics in America, is under the editorial management of William Benham Snow, M.D., with Mary L. H. Arnold Snow as associate editor, assisted by a host of associate editors of departments and a large number of collaborators, assuring high efficiency. The departments are: Gynecology and metallic electrolysis, constitutional diseases, high-frequency currents, radiotherapy, phototherapy, radiography, thermotherapy, hydrotherapy, dietetics, therapeutic exercise, psychotherapy, mechanical vibration therapy, climatology, ophthalmology, and oto-laryngology, review of French current literature, each in most able hands and most capably conducted.

The journal maintains its high standard of excellence and is a most valuable exponent of physical methods in the treatment of disease, and has played no mean part in placing the claims of physiotherapy fairly and prominently before the medical profession, for which it deserves great credit.

The Era Key to the U. S. P. A Complete List of the Drugs and Preparations of the United States Pharmacopeia. Eighth decennial revision (1905). Vest-pocket size; 83 pages; price, 25 cents. New York: The Pharmaceutical Era, Publishers, 90 William Street.

The publishers announce a new edition of the well-known "Era Key to the U. S. P.," whose object is to further the introduction and employment of the official drugs and preparations of our national standard, the United States Pharmacopeia, the eighth revision of which is now in force. The book comes in vest-pocket size and gives in a "nut-shell" all the essential information required by the physician who desires to prescribe pharmacopeia remedies—their official names, synonyms and constituent parts,

with average doses in both metric and English systems. The idea of putting the essential information of the pharmacopeia in so small a compass is claimed to be original with the publishers, under whose direction the little work was compiled. The busy physician will find it both helpful and suggestive in his effort to prescribe official pharmaceutical preparations.

Hand-Book of Physiology. For Students and Practitioners of Medicine. By Austin Flint, M.D., LL.D., Professor of Physiology in the Cornell University Medical College. With 247 illustrations in the text, including 4 in colors and an atlas of 16 color-plates, including 48 original figures taken from actual stained microscopical preparations. New York: The Macmillan Co. 1905. Price, $5.00.

This is not merely a revised edition of the author's "Text-Book of Human Physiology," but is practically a new book. He states that it is the outcome of a desire to present to students a work that may serve to connect pure physiology with the physiology useful to physicians.

Everyone who has heard Professor Flint lecture on this subject knows of his power to make his teaching plain, concise and interesting. In order to make its teaching valuable in actual medical practice, the subject, as far as possible, is treated from a medical standpoint.

The publishers have been generous in the matter of illustrations. The ordinary ones are very good, while the colored ones are exceedingly fine.

This is an excellent work, and we are sure it will meet with great success.

A Text-Book of Clinical Diagnosis. By Laboratory Methods. For the Use of Students, Practitioners, and Laboratory workers. By L. Napoleon Boston, A.M., M.D., Associate in Medicine and Director of the Clinical Laboratories at the Medico-Chirurgical College, Philadelphia. Second edition, revised and enlarged. Octavo of 563 pages, with 330 illustrations, including 34 plates, many in colors. Philadelphia and London: W. B. Saunders & Company. 1905.

When the first edition of this book came out it was thought, by many, at least, that it would be impossible to improve upon it. Time, however, and the advance of science, has made it possible to introduce so much new matter into this edition that one is led to wonder how we ever did without it. Among the changes the following may be included: Biff's new hemogelometer; Wicker's reaction; Ravold's albumin test; Cipollino's test, with

some other tests. In the subjects treated in the former edition, many are given a much more extended space, which enables the author to emphasize methods that he suggests To the student, the bacteriologist, and microscopist, as well as to those interested in urinalysis, this book will be found of the greatest possible value. The print is large, and the subjects are arranged in such a way as to lead the reader on by easy stages to a right appreciation of the subject. A. J. J.

Abdominal Operations. By B. G. A. Moynihan, M.S. (London), F.R.C.S., Senior Assistant Surgeon to Leeds General Infirmary, England. Octavo of 695 pages, with 250 original illustrations. Philadelphia and London: W. B. Saunders & Company. 1905. Canadian agents: J. A. Carveth & Co., 434 Yonge Street, Toronto. Cloth, $7.00 net.

This work deals with the complications and sequelæ of abdominal operations, with chapters on penetrating wounds of the abdomen, acute peritonitis, tuberculous peritonitis and subphrenic abscess. There is also a chapter on the treatment of visceral prolapse. A section is devoted to the surgery of the stomach, another section to the surgery of the intestines, and the two final sections to the surgery of the liver, the pancreas and the spleen.

The author is now well known as an acknowledged authority on the subject of abdominal surgery. His writings, previously published, have been most favorably received, and the present volume is certainly the most important contribution he has yet made to surgery. Each of the subjects brought under review is treated in a thoroughly scientific spirit and at the same time in a most common-sense fashion. We cordially endorse his opinion regarding mechanical appliances, button or bobbin, for intestinal anastomosis. He says: "I believe that the purpose of these mechanical aids has been served and that their interest is now only historical." Simplicity in operative technique, with thoroughness in detail, are perhaps the most striking features of Mr. Moynihan's surgical work as presented in the treatise under review.

The chapter on appendicitis is excellent. The conclusions he comes to concerning the treatment of the great variety of conditions which present themselves in trouble of appendiceal origin, are those of a conservative surgeon of wide experience, and we know of no better guide to the rational treatment of this most common of all abdominal diseases requiring surgical interference. He sums up his comments on the treatment of the appendix, where abscess is present, by saying: "There can be no doubt, I think, that in many cases of abscess the removal of the appendix

is unnecessary, and that in almost all its removal involves far too much risk to be desirable."

The illustrations are nearly all original and are excellent. There are a great many of them and they are of the greatest possible assistance in making the descriptions of technique in the text clear and easily understood. The book is well printed on first-class paper, and from the publishers' point of view is an admirable production.

We recommend the work without any reservation as an admirable guide in the field of abdominal surgery. It is undoubtedly one of the best monographs on the subject at present available.

A. P.

Golden Rules of Medical Practice. By Lewis Smith, M.D. (Lond.), M.R.C.P. (Lond.), Assistant Physician and Pathologist to the London Hospital; late Medical Tutor to the London Hospital Medical College. No. IV. Enlarged and entirely re-written. Sixth edition. Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent & Co., Ltd.

This is a booklet suited to the vest pocket, 2½ x 4 in., and 120 pages. It is a veritable *multum in parvo*. The golden rules are the result of careful observation by men of the first rank in medicine. They cover the whole field, are always interesting and helpful, and should be on the table of every physician.

W. J. W.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and practitioners. By leading members of the medical profession throughout the world. Edited by A. O. J. Kelly, M.D., Phila., U.S.A., with the colloboration of Wm. Osler, M.D., Oxford; J. H. Musser, M.D., Phila.; Jas. Stewart, M.D., Montreal; J. B. Murphy, M.D., Chicago; A. McPhedran, M.D., Toronto; Thos. M. Rotch, M.D., Boston; John G. Clark, M.D., Phila.; J. J. Walsh, M.D., New York; J. W. Ballantyne, M.D., Edinburgh; John Harold, M.D., London; Edmund Landolt, M.D., Paris; Richard Kretz, M.D., Vienna. With regular correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Vol. II. Fifteenth Series. 1905. Philadelphia and London: J. B. Lippincott Co. 1905.

This volume of the fifteenth series of "Clinics" consists of twenty-three lectures on various subjects, including five on

Treatment, five on Medicine, eight on Surgery, and one each on Gynecology, Ophthalmology, Rhinology, Physiology and Pathology. The volume is one of the best of the series published for some years. "International Clinics" has the advantage in that each volume is a separate and distinct book and independent of any other of the set. The lectures are all by men who hold a prominent place in the profession, and, as a quarterly, "Clinics" should be subscribed for almost as regularly as is one's favorite medical monthly or weekly.

The Physician's Pocket Account Book. By J. J. Taylor, M.D., Editor *Medical Council*, Philadelphia, Pa.

We receive each year, from time to time, quite a number of pocket account books, specially arranged for physicians' use. After looking over carefully Dr. Taylor's "Physician's Pocket Account Book," we can say with candor that it is one of the best. It is practical and requires only one entry of each transaction. Every patient's account is in such shape that a moment's reference furnishes every detail. It is simple in the extreme, uniquely convenient, and should save the average physician many a dollar from the day he adopts its use. The desk size account book sells at $4.00. W. A. Y.

Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., assisted by H. R. M. Landis, M.D. September 1, 1905. Philadelphia and New York: Lea Brothers & Co. Six dollars per annum.

The most interesting and perhaps the most important part of the first section is the discussion on tuberculosis. Its prevention, channels of infection, early diagnosis, and methods of treatment are some of the topics. Other parts of this section are taken up with reviews of the literature on pleurisy and other lung affections, and various diseases of the heart and arteries.

Some of the more important topics in dermatology are the use of the Finsen light in lupus vulgaris and in tuberculosis of the skin, the treatment of nevus, pruritus, and syphilis.

Part III. is devoted to reviews of the literature on diseases of the nervous system. There are interesting discussions on tabes, poliomyelitis, neuritis, epilepsy and hysteria.

Many important subjects relating to obstetrics are discussed in the last section. Among others are: Albuminuria in pregnancy, eclampsia, ectopic gestation, accidents of labor, puerperal infection, and rupture of the uterus.

This number is quite up to the usual high standard of excellence, and every article is full of interest.

Manual of Operative Surgery. By John Fairbairn Binnie, A.M., C.M. (Aberdeen), Professor of Surgery, Kansas State University, Kansas City; Fellow of the American Surgical Association; Membre de la Société Internationale de Chirurgie. Second edition, revised and enlarged. With 567 illustrations, a number of which are printed in colors. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1905.

A very seductive-looking book, so elegant, indeed, that, on picking it up, one might expect to find a hondsomely bound collection of lyrics. This, of course, shows the art of the publishers. The author states that he does not intend to deal, even in a cursory manner, with all the subjects ordinarily found in a manual of operative surgery. His aim is to be practical, "to describe operative procedures as they are done on the living subject, instead of the normal cadaver."

He omits reference to amputations and ligations. Little is said of genito-urinary surgery or of rectal surgery. Operations on the bones and joints of the extremities are also omitted. The subject of operative surgery, however, is an extensive one, and Dr. Binnie has much to tell us, and he does it in a very clear, satisfying way in his manual of 645 pages.

The work is divided into seven parts: The head and neck; thorax; abdomen; genito-urinary system; the extremities; the spine; unclassified topics. The author shows a good grasp of his subject. He accredits the various operations described to their inventors, presenting the salient points of each operative procedure in a clear, non-verbose style. To the operating surgeon Binnie's Manual would be a useful *vade mecum.* J. J. C.

A Text-Book of Practical Therapeutics.. With especial reference to the application of remedial measures to disease and their employment upon a rational basis. By Hobart Amory Hare, M.D., B.Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital, etc. Eleventh edition, enlarged, thoroughly revised and largely rewritten. Illustrated with 113 engravings and 4 colored plates. Philadelphia and New York: Lea Bros. & Co. 1905.

The eleventh edition of Hare's Therapeutics, as it has come to be known for a number of years, is divided into four parts. Part I. is devoted to general therapeutical considerations; Part II. to drugs; Part III. consists of two chapters, remedial measures other than drugs, and feeding the sick; and Part IV., of 300 pages, dealing with treatment of diseases, table of doses of medicines, index of drugs and remedial measures, and index of diseases and remedies.

One of the principal causes for many of the alterations in this volume is the appearance recently of the new United States Pharmacopeia, many preparations which were official having been dropped out and a large number of new ones added. Not only that, but a lot of tinctures have been changed in their strength and (for that reason) in their doses, and the names of many drugs materially altered. This will naturally lead to a good deal of confusion at first; but with a text-book recently and thoroughly revised, as Hare's has been, the trouble will soon be overcome. The author has done wisely in arranging his titles in alphabetical order, so that the reader can refer to the book without delay.

Dissecting Manual. Based on Cunningham's "Anatomy." By W. H. Rockwell, Jr., M.D., formerly Assistant Demonstrator of Anatomy in the College of Physicians and Surgeons, Columbia University, New York. New York: Wm. Wood & Co. 1905.

This manual is an exceedingly well-arranged production. The classification is complete, and abounds in references to Cunningham's larger "Anatomy." Its descriptions are terse and well written. The only adverse criticism which might be offered is the absolute lack of description and illustrations of the necessary proceedings while dissecting. W. J. W.

Quiz-Compends—Histology. A Compend of Histology. By Henry Erdmann Radasch, M.S., M.D., Associate in Histology and Embryology in the Jefferson Medical College; formerly Fellow in Chemistry in the University of Iowa (1895-6); formerly Lecturer on Chemistry and Director of the Chemical Laboratories in the College of Physicians and Surgeons, Keokuk, Iowa (1897-8). With ninety-eight illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1905.

This volume just escapes the dignity of a text-book, at the same time being more complete than the existing compends. Embryology is only touched upon in so far as it bears directly on histology, except in the chapter on placenta and umbilical cord, where embryology is essential for a thorough knowledge of their structure. Here, however, we find somewhat more detail. Technic has been made as complete as is necessary for routine work.

The subject is treated in a manner at once lucid and scientific, and the book should enjoy a very considerable popularity.

W. H. P.

Rose o' the River. By Kate Douglas Wiggin. Toronto: William Briggs. Cloth.

The authoress is not at her best in "Rose o' the River," but to be at her best means much to her devoted readers, for who among that number, and they are legion, did not fall in love with "Rebecca of Sunnybrook Farm"? And was not "Penelope" inimitable, in her way? The sketch of "Rose" is placid, neither deep nor stirring, just a cool, pleasant draught of water from one of Mother Nature's wells, refreshing amid the heat and hurry of the day's work. Every physician can recommend it to the nurses tending his cases, "to be read aloud"; in its tranquility it will prove helpful. W. A. Y.

The Millionaire Baby. By Anna Katharine Green. Toronto: McLeod & Allen. Cloth, price $1.25.

To those who like mystery, this story is a treat in store. Well planned, an intricate spider's web, the unravelling of which keeps the interest keen and the reader absorbed from the first chapter to the finish. W. A. Y.

Clinical Treatises on the Pathology and Therapy of Disorders of Metabolism and Nutrition. By Professor Dr. Carl von Noorden, Physician-in-Chief to the City Hospital, Frankfort-on Maine. Authorized American Translation. Edited by Boardman Reed, M.D., late Professor of Diseases of the Gastro-intestinal Tract, Hygiene and Climatology, Department of Medicine, Temple College, and Physician to the Samaritan Hospital, Philadelphia; Physician to the American Oncologic Hospital, etc. Translated by Florence Buchanan, D.Sc., and J. Walker Hall, M.D. Part VII., Diabetes Mellitus: Its Pathology, Chemistry and Treatment. Lectures delivered in the University and Bellevue Hospital Medical College, New York. Herter Lectureship Foundation. New York: E. B. Treat & Co. 1905. Price, $1.50.

Professor von Noorden's lectures on metabolism and nutrition are published in a series of monograms: No. I. Obesity, No. II. Nephritis, No. III. Colitis, No. IV. Acid Autointoxication, No. V. Saline Therapy, No. VI. Drink Restriction, and the present volume, No. VII., Diabetes Mellitus.

The author has treated some 2,500 cases of diabetes, a number much greater than falls to the lot of even the most fortunate. His close observation and ability as a clinician, together with his excellent laboratory facilities, have combined to place these monograms on a very high plane in medical literature.

Von Noorden's views will have their effect on life insurance.

On page 147 he says: "Diabetes frequently, though not always, indicates a family predisposition," and again, "Transitory glycosuria, not due to a diet rich in sugar, is in most cases the warning signal of later diabetic disease."

Most text-books tell us to avoid carbohydrates. Von Noorden explains how and why, and also points out that proteids may, under certain conditions, produce glycosuria, while too rigid a restriction of carbohydrates is apt to lead to acetonuria and its dangers.

The work is original, and we think marks a distinct advance in the problems of metabolism and the causes, conditions and treatment of diabetes mellitus. W. J. W.

The House of Mirth. By Edith Wharton. Toronto: McLeod & Allen. Cloth, price, $1.25.

The novel of the hour, and worthy of its place. A story of the life of a beautiful girl in New York "society," as the term is now understood. Skilfully told, every sentence rings true; so little of the didactic, free from exaggeration, and leading on, step by step, to the inevitable yet beautiful ending. Satisfying to the reader, inasmuch as some one has said of the authoress, "She has often stood on the threshold of life; now she has entered into its tragic and mysterious secrets." Y.

The "Extra Pharmacopeia" of Martindale and Westcott.

"We cordially welcome the advent of the 11th edition. The thoroughness and usefulness of the book are still its leading characteristics. Of special interest is the new section on radiology, in which the Roentgen rays, Finsen lamp, high-frequency current and radiant heat are discussed. The attention directed to radium is also reflected in a very interesting and exhaustive monograph, describing its preparation, properties, tests for purity, and its uses and methods of being used as a remedial agent; this is quite the best summary on the subject which we have yet seen, and, in addition to radium, other radio-active elements are dealt with. The chapters on antitoxins and organotherapy have been largely rewritten, and that on analytical methods has been carefully revised and brought up-to-date.

"The index, which has been increased by more than 1,500 titles, forms a striking feature, and now occupies no fewer than 138 pages; space has been economized in the text, however, by the omission of cross references, thus rendered unnecessary. Though the large amount of new matter has caused bare addition of 112 pages, the size of the book has actually been reduced, through the use of finer paper.

"We have touched generally on the principal alterations and

improvements effected, for their number renders more than an indication of them impossible in the space at our command. No one engaged in medicine or pharmacy can afford to be without a copy of the latest edition of this valuable work of reference."—*British Medical Journal,* May 21st, 1904.

"The eleventh edition of the "Extra Pharmacopeia" is now in the press, and an inspection of the press sheets suffices to show that it is not likely to prove less indispensable than any of its predecessors. It contains more than a hundred pages in excess of the tenth edition, published three years ago, but by the employment of finer paper it has been found possible to decrease the size and weight of the volume without impairing the clearness of the type. The notes on many of the older drugs and preparations have been omitted, space being thus found for information regarding more than 300 new remedies, in addition to more detailed accounts of many useful therapeutic agents at present in use.

"Less space than heretofore is devoted by the revisers to older references from medical journals, but many new references to treatment are added. Cross references are for the most part omitted, but all titles will be found in the index, which has been increased by 31 pages, and now contains 1,500 titles, including the names—with doses—of many preparations in general use, but not elsewhere mentioned. There are new sections on surgical dressings and apparatus, mineral waters, and radiology, the last-mentioned including very full notes on Roentgen rays, high frequency current, the Finsen lamp, and radiant heat, in their important applications to therapeutics. Further, the mass of pharmaceutical research work has been carefully abstracted, the therapeutic index has been revised and rearranged, the analytical memoranda are extended by paragraphs on tests for the detection of various substances of pathological significance in urine, the notes on water analysis have been revised, the bacteriological notes are corrected up-to-date, and the sections on antitoxins and organotherapy have been almost entirely rewritten. The usefulness of the book has been further increased by the inclusion of useful tables of international atomic weights, freezing mixtures, the approximate melting-points and consistence of fats and waxes employed in pharmacy, thermometric equivalents, etc."—*Pharmaceutical Journal,* May 7th, 1904.

"The 'Extra Pharmacopeia' is now so universal a part of the stock-in-trade of the complete pharmacist that it cannot be out of place to mention in this section the appearance of a new edition (the eleventh). The little engraving which we give shows that the form of the book is slightly altered, the edges being round, and although the book contains 809 pages, as compared with 688 in the last edition, it is thinner and lighter. The appearance is alto-

gether much improved, and the print is easier read, perhaps because the paper is free from the yellow tint of previous editions. Dr. W. Harrison Martindale and Dr. Wynn Westcott have been engaged on the revision of the book during the past eight months, and while the increased number of pages suffices to indicate the extent of the revision and the elaboration, the fact that 1,200 new titles are included in the index is the best evidence of the increased worth of the book. It includes new sections on radiology, mineral waters (exceedingly concise), and a rearrangement of the information on surgical dressings and appliances. The therapeutic index of diseases is also completely rearranged, internal remedies being printed in Roman type and external remedies in italics. Our examination of the new edition shows that the revisers have been careful to retain all that is valuable in the old, and have introduced a very great deal that is useful to prescribers and dispensers. For example, there is a clever table of approximate melting-points and consistence of some fats and waxes suitable for suppositories, pastes, creams, and ointments, which ought to be worth a good deal to dispensers."—*Chemist and Druggist*, May 7th, 1904.

"The appearance of the 11th edition of the 'Extra Pharmacopeia' of Martindale and Westcott will be welcome alike to the physician and the pharmacist, for we know of no volume which is more of a *sine qua non* to either of those practitioners than the work published by Mr. H. K. Lewis, 136 Gower Street, London, W.C.

"The first thing that strikes one with the present volume is that it is smaller than its predecessor; this decrease is, however, entirely one of bulk and not of text, as by the adoption of a thinner paper the weight has been reduced from 11 ounces to 8½, a matter of no small moment when we consider the number of physicians who carry the book in their pockets as an ever-reliable guide, philosopher and friend. Not only is the number of pages not lessened, but there is actually an addition of 112, and yet the price is less than of the 10th edition—9s. 6d. as against 10s. 6d. We, as far as time has permitted, have carefully compared this issue with those of previous years and do not find that the value of the book has suffered in the least; indeed, considering that a very large number of new articles are dealt with the usefulness has materially increased.

"The former scheme of the work has in its essentials been maintained, but the increasing list of articles which have to be dealt with—over 300 fresh drugs or preparations are included—has rendered excisions and curtailments necessary: but the task of revision has been conducted with care and judgment, and the 'Extra Pharmacopeia' remains a book which no pharmacist or

physician who wishes to keep in touch with the latest introductions in curative agents can afford to be without."—*British and Colonial Druggist*, May 6th, 1904.

The Bloodless Phlebotomist.—This is a pamphlet issued regularly by The Denver Chemical Mfg. Co., of New York and London, England. It deals with the therapeutic value of their preparation, Antiphlogistine, and shows how that article is of value in any condition where it is considered necessary to deplete, with uniform and certain results.

Some Recent Medical Publications by well-known Authors.—Our readers will be interested in reading the announcement appearing on page vi., of this issue of our journal, of Mr. H. J. Glaisher, 57 Wigmore St., Cavendish Square, London. This gentleman has been identified for many years with medical publishing, and has the reputation of placing at the disposal of the profession only works of high standing and scientific interest. Some of those published by Mr. Glaisher are: Froussard (Dr.).—Mucomembranous Enterocolitis. Crown 8vo, sewed, 60 cents net, by post 66 cents. Herschell (George, M.D.).—Indigestion. 3rd edition. Demy 8vo, cloth, 84 cents, by post 92 cents. Ready shortly. West (Samuel, M.D., F.R.C.P.).—On Granular Kidney and Physiological Albuminuria. Demy 8vo, cloth, $1.80 net. Blake (Edward, M.D.).—The Intestinal Catarrhs. Being the 2nd edition of "Colitis, Appendicitis and Their Allies," with a special section on Treatment and Copious Index. The only English Treatise. Demy 8vo, cloth. Freely illustrated. Price $1.20. Cowen (R. J.).—X-Rays: their Employment in Cancer and other Diseases. Crown 8vo, cloth, 60 cents, by post 66 cents. Williams (Charles).—A Short Essay on Insanity. Demy 8vo, sewed, 24 cents, by post 26 cents. Bell (Robert, M.D.).—The Cancer Problem in a Nutshell. Demy 8vo, sewed, 24 cents, by post 27 cents. Prenderville (A. de, M.R.C.S.).—Ethyl Chloride in Surgical and Dental Practice. 3rd edition. Demy 8vo, 24 cents net, by post 26 cents. Cullingworth (C. J., M.D., D.C.L.)—Clinical Illustrations of Diseases of the Fallopian Tubes and of Early Tubal Gestation. Roy. 8vo, cloth, $2.52 net, by post $2.64. Herschell (George, M.D.).—Manual of Intragastric Technique. Demy 8vo, cloth, $1.50 net, by post $1.60. Hutchinson (Woods, A.M., M.D.).—Studies in Human and Comparative Pathology. Demy 8vo, cloth, $3.00 net, by post $3.12. Savill (Thos. D., M.D.).—Clinical Lectures on Neurasthenia. New edition. Demy 8vo, cloth, $1.20 net, by post $1.28. Mr. Glaisher's Canadian representatives, from whom books can be promptly obtained, are: Chandler, Ingram & Bell, Limited, Cor. Yonge St. and Wilton Ave., Toronto.

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